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Clinical Medicine and Surgery

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* Editorial *

Dr. William James Mayo

ON June 29, 1861, at LaSeur, Minnesota, a son, William James Mayo, was born to Dr. William Worrell Mayo and his wife, Louise Abigail, *nee* Wright. Two years later, the family removed to Rochester, Minnesota, which has been the Mayo home ever since.

Young William was sent to the public schools in his new home and thereafter attended the Rochester High School and Niles Academy. Upon the completion of his preparatory education, he decided to follow in his father's footsteps and accordingly took up his medical studies at the University of Michigan, from which institution he was graduated as a Doctor of Medicine in 1883.

Being now a full-fledged physician, Dr. Mayo returned to Rochester and entered upon the practice of medicine with his father. This group was augmented, five years later, by the association of his younger brother Charles.

William did not feel, however, that his education was finished with the obtaining of the coveted "sheep skin." From boyhood he had learned that education is a constantly progressive process, as his wise and energetic father had early inculcated studious habits and had insisted that both of his sons familiarize themselves, by personal contact, with all the minutiae of the work of the profession they were to follow. In 1899 he received the degree of Master of Arts from his Alma Mater, and later did extensive postgraduate work at Harvard University and at Trinity College, Dublin, and other European schools.

A year after his graduation in Medicine (1884), Dr. Mayo married Miss Hattie M. Damon.

In 1888 he assisted his father in drawing up the plans for St. Mary's Hospital, and when that institution was opened, the next year, though the elder Dr. Mayo was appointed Chief of Staff, the actual operative surgery was largely performed by Dr. William and his brother, Dr. Charles, who had just been graduated from the Chicago Medical College.

The world-renowned Mayo Clinic was opened in Rochester in the same year with St. Mary's Hospital (1889), and the strenuous labors connected with these two institutions kept the father and his two sons rather more than busy for a number of years, for "modern conveniences" were little known in those days and all of the routine work, as well as the operative surgery, had to be done by these three energetic and capable men. Truly, fame does not come by accident!

The outstanding character of Dr. Will Mayo's professional work was first recognized by his election as president of the Minnesota State Medical Society, in 1895. After that all sorts of honors came to him. He was president of the American Medical Association, the Society of Clinical Surgery, the American Surgical Association, and the American College of Surgeons, and was a regent of the University of Minnesota from 1907 until his retirement from active practice.

Several medals were awarded to Dr. Mayo for his researches in surgery, and he was made a Fellow of the Royal College of Surgeons of Scotland, England and Ireland, as well as being an officer or member of most of the leading foreign surgical societies. Degrees were conferred upon him

by the Universities of Michigan, Toronto, Maryland, and Pennsylvania, and by Columbia University.

In 1915, he and his brother, Charles, contributed $1,500,000 to establish the Mayo Foundation for Medical Education and Research, in affiliation with the University of Minnesota, and in 1919 the Mayo Properties Association was organized, thus insuring the permanence of the institution for public service.

Few physicians or surgeons, or even family groups of such men, leave an estate of a million and a half dollars, as a result of a long lifetime of professional work, to say nothing of contributing that amount of money for educational purposes in the midst of their careers, so this endowment of the Mayo Foundation speaks volumes in testimony to the unique powers for organization and promotion possessed by these two remarkable brothers, in addition to their professional abilities, which were great.

Dr. Mayo was commissioned first lieutenant in the Medical Reserve Corps of the Army in 1912. When hostilities began, in 1917, he was immediately advanced to the grade of major, and, in 1918, to that of Colonel. He and his brother, cooperating with the University of Minnesota, organized Base Hospital No. 26. During the period of the war the two brothers, William and Charles, alternated as chief consultants for all the surgical services of the Army. In 1919, Dr. William was awarded the Distinguished Service Medal, and in 1921 he was commissioned a Brigadier General of the Medical Reserve Corps.

It would be superfluous to attempt to enlarge upon Dr. Mayo's professional reputation, for it is known in all quarters of the globe. He contributed more than 300 articles to medical literature, and the publications of the Mayo Clinic and of the men who have been trained there would fill many volumes. He will be remembered, not only as one of the most competent and dexterous operators of all time, but also as a research worker whose studies materially advanced the science and art of surgery, and as a lecturer and teacher of no mean order.

Such pictures of the Doctor as the one herewith have rarely been published, but the pose and surroundings will appear familiar to the scores and hundreds of physicians who have gained knowledge and inspiration from the teaching and example of this man, whose long and illustrious career came to a close on July 28, 1939. His enduring monument will be, not a shaft of dead stone, but a living and vital institution which will go on, bearing his name, indefinitely.

It is, perhaps, remarkable that the two most widely known medical men of America should have passed from the scene of their labors within a few weeks of each other, and their foresight in placing the great Clinic they founded under the charge of a board of directors, about ten years ago, instead of trying to carry on such arduous duties themselves, is a testimony to their sound judgment and business acumen.

Picture Articles

PICTURES are becoming a more and more important factor in teaching of all types, including the teaching of medicine; and in view of the success of the general periodicals, practically the entire contents of which consists of pictures, with a few lines of text on each page, mostly in the form of legends to the cuts, it has been suggested (in fact, Creer mentioned this idea in his article which appeared in the January, 1939, issue of this Journal, on page 13) that the medical magazine of the future will more or less follow this trend.

Unless strong emphasis is placed upon the word, *less*, this would be an undesirable state of things (even if it were possible), for two reasons: First, there are many lessons for the physician which cannot be adequately presented, if at all, by pictures; and second, since the science and art of healing constitute one of the scholarly professions, it would be deplorable if its members should descend to the general level of haste and indigestion (mental as well as physical) which these "picture papers" are fostering.

On the other hand, there is little doubt that most medical periodicals would be more attractive, as well as more helpful, if they contained more pictures than they now do; but, to a considerable extent, this desirable condition can be attained only when the contributors to the medical literature learn the art of when and how to illustrate, and the technic of making the pictures or the means for having them made.

In this issue we are beginning an experiment along this line, with the publication of the first of a series of one-page picture articles dealing with "Nonoperative Orthopedic Technics," by Dr. Russell A. Winters, of Chicago, in which most of the text consists of legends describing the drawings, the rules of English grammar being sacrificed to attain the necessary brevity.

These presentations will appear monthly, or as frequently as our space and the author's time and facilities permit, and we believe that our readers will find them decidedly helpful.

As we are breaking rather new ground, we hope to receive constructive criticism and practical suggestions, so that the succeeding numbers of this series can be improved, if they need improvement. Has the author made his technics entirely clear? If not, how could he have been more explicit? Is the text sufficient to supplement the drawings? Do the legends adequately explain the maneuvers? Do you like this form of presentation?

If the last question is answered in the affirmative, we will try to obtain other articles of the same type. Please give us your reaction. A postcard will do.

Open-mindedness is a far greater advantage to human welfare than is opposition to things that are unknown on the ground that they are "unscientific."—DR. H. EDWIN LEWIS.

The Red Cross Serves

Most of us are apt to think of the Red Cross as a big, impersonal agency that functions after floods, tornadoes, and similar catastrophies; but here are some stories of *personal* service that come close home:

Two bewildered old people sat opposite the executive secretary of the Red Cross chapter in a midwestern town. Their son, a veteran, was rapidly becoming uncontrollable because of incessant drinking. His violent quarrels with others had caused him to lose his job, which he had held for years, and his family lived in terror when he went on one of his sprees. Could the Red Cross "do something?"

The Red Cross could, and did! Shortly after the interview the man was admitted to a government hospital specializing in the care of mental illnesses and treatment of alcoholics. After eight months of treatment the man was discharged, with a new lease on life.

One of his first calls after returning home was at the Red Cross. Hesitantly he requested that a claim he had filed for compensation for an overseas injury be dropped, because he was now physically and mentally able to hold his job and had gone back to work.

Aid to veterans includes other services than arranging for hospitalization or presenting government claims. Time and again the medical-social service of the Red Cross has been a help to government hospital staffs in curing some stubborn illness where drugs and other therapeutic measures had not fully succeeded. Veterans have received vocational training, their family problems have been adjusted, and they have been enabled to face the world anew. During the past year, 165,000 veterans or their families were aided by the Red Cross.

The organization, however, does not confine its activities merely to service men and veterans. Its history has been one of continued expansion. Within the past several years it has added home and farm accident prevention to its functions.

By means of anti-accident films, lectures, printed matter, and community surveys, it seeks to educate the public to a realization that most mishaps can be avoided. The Red Cross is the first organization to take up the question of home and farm accident prevention on a nationwide scale.

This campaign stresses the need of sufficient light in the home and the value of orderliness. Disorder, such as misplaced furniture, toys and other objects on stairways, and carpets which have a tendency to trip people, combined with poor vision, whether because of lack of light or some other reason, frequently results in falls which, last year, were responsible for more than half of the 31,500 home fatalities. Care in the use of cleaning and other explosive or combustible substances is also stressed and emphasis is placed on the use of proper tools and household equipment in pursuing daily tasks, the need of having electrical appliances in good order, and many other points.

On the farm side, the importance of care in handling animals and machinery is particularly pointed out, as these two factors are responsible for half the 4,300 work fatalities in this industry. Here again, the importance of proper tools for each task, proper lighting and ventilation, and other accident-prevention measures is emphasized.

The services of the Red Cross are made possible by members, whose dues finance all day-to-day activities. To meet the increasing demands, and at the same time enable the organization to prepare for any, at present, unforeseen emergency, it is planned to enroll 1,000,000 new members this year. The medical profession has long cooperated with the Red Cross, both in matters of service and membership. This year's Roll Call begins on Armistice Day and ends on Thanksgiving Day. *Do your bit!*

It is the duty of all, that, possessing, they share; knowing, they teach; and commanding, they serve.—Manly P. Hall.

The Essential Family Doctor

In a thought-provoking article in *Survey Graphic* for July, 1939, Michael M. Davis, in commenting upon a report by Gladys Swackhamer, brings out, in a rather unusual way, the vitally important place which the family doctor should be playing in the medical problems of our time—but generally is not. In fact, if the goblins of State Medicine get us, it will be largely because the physicians of this country didn't watch out to keep that type of medical man a flourishing and ubiquitous institution.

In a study of 365 self-supporting families in the small-income group, living in three different parts of Manhattan,* Miss Swackhamer found that the patients' choices of a medical attendant were almost entirely uncoordinated, due largely to the fact that the services of a family doctor, who alone could be an effective coordinator of medical services, were not available to two-thirds of these families, and imperfectly available to the remaining third, so that they had to fall back upon mass-production clinics or ill-chosen and often incompetent specialists. Conditions are probably better than this in the smaller communities, but are still bad enough.

"Prominent among the psychologic causes of dissatisfaction," says Miss Swackhamer, "is the failure of many clinics and physicians (1) to give the patient time and opportunity to unburden himself of his troubles; and (2) to give the patient desired information and reassurance. Irritations arising from the patient's personal life and environment are often overlooked as focal points of symptoms."

Consider, as honestly and impersonally as you

*"Choice and Change of Doctors," by Gladys V. Swackhamer. Published by the Committee on Research in Medical Economics, 9 Rockefeller Plaza, New York, N. Y. A copy will be sent free on request to the Committee.

can, to what extent *you* are giving patients these causes of dissatisfaction. If you are a keen observer and can be honest with yourself, you may discover how satisfactory a family doctor you are (or are not) and why your practice is not so extensive as you wish it were.

The general practitioners are not wholly to blame for this disastrous state of affairs, but to a considerable extent they *are* to blame. Modern life is complex and difficult for millions of our people; hospitals, clinics, and specialists have been publicized in a way that is not possible for the ethical individual physician; people are moving about to an extent never known before; but one of the most potent factors in the present situation is the fact that too many young physicians have been and are looking upon general family practice as merely a steppingstone to entrance into some specialty, and are, too frequently, doing general work in a half-hearted and slipshod way.

Another way in which our profession has erred has been in our failure to recognize the premonitory symptoms of the social-economic disease from which we are now suffering, and take prophylactic measures before the disorder was fully developed. Such measures might have included hearty and fraternal cooperation among individuals; the coordination of professional information and activities in communities and the setting up of unbiased agencies to furnish strangers with suggestions as to where they might obtain the sort of advice they needed; and, above all, the recognition of the unquestionable fact that general family practice is the most essential type of medical service for from 75 to 90 percent of our people —the one *unique* service which distinguishes individual medical practice, as we have known it, from the politicalized, sausage-grinder affair that is perilously near to engulfing us.

It may not be too late for us to retrieve our errors and save ourselves—*and our patients*—from the disaster of State Medicine, but *it is later than most people believe.*

Half of the problem could be solved if every general clinician would solemnly dedicate the rest of his professional life to the sincere understanding, wholehearted, and sympathetic practice of family medicine, cooperating honestly with all his confreres.

The other half is a job for Organized Medicine — and *what* a job! How immensely superior to the playing of petty politics and the jockeying for personal preferment and "authority"! This, too, is basically the concern of individual physicians, for Organized Medicine is merely ourselves working together in a good and worthy purpose. The organization is just as wise, sane, unselfish, patriotic, intelligent, and energetic as *we* are, for we can, *if we will,* make it truly representative of us.

If we cannot give these matters some honest and prayerful thought, and are too lazy, complacent, or indifferent to do *something about it,* we will deserve whatever may happen to us.

NEXT MONTH

Dr. Paul Van Metre, of Rockwell City, Iowa, will offer several unusually interesting and practical abstracts of papers presented at the June meeting of the Twin Lakes District (Iowa) Medical Society.

Dr. F. A. Wier, of Racine, Wis., will explain, in detail, a conservative method for treating diseased tonsils.

Dr. R. L. Gorrell's article, scheduled for this issue but unavoidably delayed, is again scheduled for the next; and we expect to have the second of Dr. Winter's series of one-page picture articles on "Nonoperative Orthopedic Technics."

COMING SOON

"Sclerosing Treatment of Hemorrhoids," by Charles J. Drueck, M.D., F.A.C.S., Chicago, Ill.

"Spinal Anesthesia," by Carl C. Howard, M.D., F.A.C.S., Glasgow, Kentucky.

AUTUMN MADNESS

Low-flying, wind-driven clouds,
On a moon-filled night soft with rain,
When the trees are tattered and rusty
After their flaming gladness,
And the martins, winging in crowds,
Long since started south again,
Shake my heart with the poignant and lusty
Savor and sweep of June madness.

Who could be utterly sober
On a sweet, windy night in October?

G. B. L.

* *Leading Articles* *

Shall Chemotherapy Replace Organotherapy?*

By
HENRY R. HARROWER, M.D., Glendale, California

ARE synthetic substances with hormone-like actions superior to "natural" endocrine principles? Does the availability of these synthetics and of active natural endocrine fractions render whole-gland therapy obsolete? As usual in scientific problems, these questions cannot be answered validly with a simple yes or no, but evidence is rapidly accumulating to enable us to make some rational conclusions.

What might be called the "theological attitude" does not, of course, belong in a scientific discussion, yet it not infrequently afflicts the finest scientific minds. The extreme theological attitude is typified in the verse:

"We are God's chosen few,
A pure and holy band.
There ain't no room in heaven for you;
We can't have heaven crammed."

Some excellent physicians have, at times, succumbed to a faith that the endocrine "heaven" is reserved strictly for those who accept a particular endocrine creed. Classic samples of this curious intolerance abound. When, fifty years ago, George R. Murray proposed thyroid emulsion as a treatment in myxedema, a senior man remarked, "You might as well expect an emulsion of spinal cord to cure tabes." When a colleague in America wrote to Sir Walter Langdon-Brown about the brilliant results obtained by feeding liver to pernicious anemia patients, Sir Walter replied, "Wonderful men, these Americans! Do they give bacon with their liver?" This great British endocrinologist told this on himself, and he recently said[1]: ". . . It did seem to me that the late Prof. Swale Vincent erred on the side of caution when he maintained that the fact that a juice possessing certain pharmacological properties could be squeezed out of the pituitary body threw no light on the function of the gland. Even as recently as 1921, Sir James Berry announced himself an impenitent sceptic as to the parathyroids having any separate function from the thyroid."

Of course, in Murray's day, thyroid therapy was empiric, and the first feedings of liver to pernicious anemia patients were empiric. The scientific mind properly rebels against empiricism and attempts to replace it with rationalism. But empiricists have introduced some of the most important advances in medicine, and a remedy is by no means valueless because its use is empiric. Admittedly, the empiricists are often enthusiasts, and overenthusiasm has sometimes hurt organotherapy. Nevertheless, it is equally true that anti-empiricists sometimes carry us to equally undesirable extremes. The promised land, described so attractively a few decades ago by the pioneers in oral organotherapy, may not have been everything we expected, but the alternative promised land of the synthetic chemists does not seem to be fulfilling their glowing prophecies either.

Some years ago the critics of endocrine therapy occupied themselves in declaiming against desiccations because of their low potency, or because they were "destroyed by digestion." Now the same critics are going to be kept busy declaiming against the newer fractionated active principles and synthetic endocrine substances, because of their high potency and toxicity.

Great potency and great purity, like great wealth, always bring their own peculiar hazards. Since no substance can be provided with intrinsic intelligence, the more powerful it is, the less fool-proof it is likely to be, and the more care has to be exercised in learning its advantages and disadvantages. What more striking illustration of this could we have than the recent experiences with sulfanilamide and its successor, sulfapyridine? Though still of such great value in pneumonia that it may even supplant specific antiserums, sulfapyridine has recently been described by Marshall[2] as having "every disadvantage a drug can have." He states that it produces nausea in many patients, that it may cause kidney stones, and that accurate dosage is extremely difficult, because of the irregularity of absorption.

Epinephrine

The first great step in chemical endocrine research was the synthesis of epinephrine by Stolz[3], in 1904, though today the natural epinephrine is generally preferred. The most unfortunate of the side effects of this and related triumphs, however, was the rash acceptance of epinephrine by many workers as the *only* adrenal hormone. Using this as a premise, adrenal therapy was frowned upon and derided because it did not produce epinephrine-like pharmacodynamic effects. Used successfully by empiricists during twenty years of ridicule and derision, adrenal therapy has only recently achieved its proper importance, through the discovery of the cortex hormone and a large number of clinical and experimental researches resulting therefrom. Because of its cost, many efforts have been made, particularly by Kendall, to synthesize the cortex hor-

*Read before the Endocrine Round Table, Los Angeles, Calif., Sept. 7, 1939.

mone, and at least one synthetic product—desoxycorticosterone acetate—is now available. However, it appears at present that the natural cortex hormones are superior. Levy Simpson,[4] for example, recently stated that, while he had used desoxycorticosterone with some success, it apparently was not a complete substitute for the natural hormone. His report concludes: "The synthetic hormone did not appear, clinically, to be the only constituent of the active cortical extract."

In explaining two failures with desoxycorticosterone, H. P. Himsworth[4] suggested: "The preparation might be toxic over a long period, but more probably the explanation was that it did not contain all the principles necessary."

The synthetic cortex hormone may yet be perfected, but it seems doubtful that it will replace the highly satisfactory natural cortex products now available, any more than synthetic epinephrine has replaced the natural medullary hormone.

Thyroxin

A classical example of what a bitter disappointment a glittering chemical endocrine triumph may be, is found in the field of thyroid therapy. The isolation of an active thyroid derivative in crystalline form, by Kendall[5], at the Mayo Clinic, on December 25, 1914, caused a scientific sensation. It gave us a thyroid substance which, administered intravenously, was capable of causing uniform increase in the basal metabolic rate. Authorities, almost without exception, seemed to assume that this discovery would lead to the complete abandonment of crude thyroid desiccations, and for a few years one sure way of being regarded as an empiricist—which, to some, is the equivalent of a quack—was to prefer thyroid desiccation to thyroxin. Meantime, the fractionated thyroxin was duplicated by chemical synthesis (Harington) though it did not replace the natural product.

Fashions in therapy are quite as unpredictable and intolerant of a dissenter as fashions in ladies' hats and, while the thyroxin fashion lasted, those of us who preferred desiccated thyroid were looked upon as having horse-and-buggy mentalities. Now, the position seems to be entirely reversed. As far back as 1924, Plummer and Boothby[6], of the Mayo Clinic, stated that they preferred desiccated thyroid for oral administration. About the same time Reid Hunt[7] reported that ". . . animal experiments show that thyroxin is in some of its effects less active, even by intravenous injection, than thyroid administered by mouth, the drugs being given in doses containing equal amounts of iodine."

The editor of the *J.A.M.A.*[8] recently remarked: "While thyroxine is of great scientific importance, it likewise has almost no part in the treatment of hypothyroidism. . . . In nearly every case of hypothyroidism the medication of choice is desiccated thyroid, which is cheap, readily obtainable, and easy to take."

So it is that "crude" desiccated thyroid—introduced empirically, improved chemically, replaced synthetically—has executed a complete cycle and returned to supplant its more refined and chemically pure descendant. It is not suggested that every glandular advance goes through this same cycle, but it has been repeated often enough to keep us from the error of discarding tried and proved endocrine remedies in favor of more highly purified fractions or synthetic substitutes from which essential elements may have been discarded and which, at all events, are still in an experimental, even though fashionable, stage.

Many efforts have been made to synthesize insulin. I was in London while discussions were rife on the synthesis of insulin by Spath (in 1925), and I learned personally, from Dr. P. J. Cammidge, that, while the crystalline material appeared to be the exact counterpart of the pancreatic product, capable of causing comparable sugar-curves in pancreatectomized animals, its action in diabetic patients was "very harsh." Because of its inconsistent action and toxic reactions, synthetic insulin has never replaced the natural product.

Even purification of natural hormones can be overdone. An example of this is offered by recent efforts to concentrate and purify liver fractions. Reporting the work of John F. Wilkinson in the University of Manchester, it was stated:[9] "Thus it has been noted that the highly purified liver extracts may produce only reticulocytosis and partial or slow improvement in the red cells and hemoglobin percentage, without the complete and rapid return to normal that follows the use of less highly purified liver extracts."

Recently Wills and Evans,[10] in the London School of Tropical Medicine, showed that, in certain tropical macrocytic anemias, crude liver extract is more effective than the antipernicious anemia fractions. Commenting on this, the editor of the *Lancet*[11] remarked: "The immediate clinical bearing of this work is noteworthy; if patients with macrocytic hyperchromic types of anemia fail to respond to pure preparations of liver, it is essential to try cruder preparations before deciding that they are resistant to liver therapy."

The U.S.P. Anti-Anemia Preparations Advisory Board, appreciating the importance of work of this character, recognize the danger of overpurification and, therefore, have limited the potency of liver products approved by them.

But the lessons of precedent and experience are remarkably ineffective with the majority of medical men. Too many of us are not only content, but strangely proud to go along with what is euphemistically called the "consensus." The consensus today is that sex hormone therapy is valueless except with the use of active-principle estrogenic or androgenic substances, preferably prepared synthetically. Enthusiasm for new and potent products of this kind gives many of us the sensation of being scientific, and this sensation is accentuated if, simultaneously, we arch our eyebrows and consign all earlier products to disuse and dispraise.

Estrogens and Androgens

Possibly the most fundamental disadvantage of these products is that they represent, first and last, substitution therapy. As Shelton[12] said, discussing a paper by Fluhmann: "As he has pointed out, the estrogenic preparations are substitutive in the same sense that insulin and thyroxin are substitutive and should be handled accordingly. It has always been difficult for me to see the rationale of treating a patient with an undeveloped uterus, ovaries, or adnexa by such means when there is a remaining hope that the patient's own ovaries may be made to function and manufacture her own estrogens."

True or natural hormone material brings to the patient's own depleted glands "the makings" of more of the normal hormones, thereby facilitating restoration of production where this is possible. True, it is difficult to establish this theory beyond

quibbling, but a wealth of clinical evidence supports its validity. The prehormones or endocrine precursors, such as pro-secretin, seem to support it.

A second point is that the degree of purity of the endocrine products used may determine the degree of antihormone production. Lake,[13] reporting a paper read by Collip before the American College of Physicians, states: "The production of antihormones is in direct relation to the degree of purity of the hormone used; which suggests that, for clinical purposes, the less highly purified products should be more satisfactory."

Collip[14] himself, referring to the purified growth factor of the pituitary gland, says: "Animals treated with crude anterior lobe extracts have continued to grow for longer periods, and the very interesting possibility arises that the production of antihormones may be greatly modified by the degree of purity of the hormone extract used in treating the experimental animals."

Another disadvantage of the overenthusiasm for single-fraction sex gland therapy is that it deprives a large number of patients of simple, inexpensive methods which might have more permanent and less harmful effects. The glands are members one of the other and their established interrelationships make pluriglandular treatment the only complete and rational therapy, in many instances. In other words, the indirect approach is often preferable in organotherapy, as in diplomacy. Many examples of this might be cited, but it must suffice here to mention the work of Foster and Thornton,[15] who treated fifty girls with menstrual irregularities, *using thyroid therapy alone*, with a high percentage of success (a number of these girls, in other hands, would probably have been given estrogenic or anterior pituitary-like substances); McCullagh,[16] who obtained relief of impotence with thyroid extract alone; Jacobsen and Cramer,[17] and Molitch and Poliakoff,[18] who successfully used a thyroid-pituitary combination, by mouth, in retarded children; and Gordon,[19] who used a similar combination in sexually undeveloped boys with cryptorchidism.

But most important of all, the disadvantages are subtle dangers inherent in the active fractions and synthetic substances. It is not intended to say that the disadvantages outweigh the advantages to the point where these products should be discarded, but certainly it is just as important to know the harmful as the healing possibilities, if we are to use them wisely.

The carcinogenic possibilities of the estrogens are still under dispute. The potency of these substances and their apparent selective effect on mammary tissue has been indicated by the development of tender swellings in the breasts of males employed in handling estrogenic ointment.[20] A recent study by Allaben and Owen,[21] entitled "Adenocarcinoma of the Breast Coincidental with Strenuous Endocrine Therapy," certainly seems to emphasize the need for conservatism in the use of estrins in high dosage. Nelson,[22] discussing atypical uterine growths produced by prolonged administration of estrogenic hormones, points out that recent studies have demonstrated that estrogenic therapy has been definitely related to carcinoma of the mammary gland. He also cites Witherspoon[23] as having shown, years ago, that the estrins may be involved in the etiology of neoplastic uterine growths.

The synthetic male sex hormone, testosterone propionate, while a fine scientific achievement, has recently been exploited and overused with an enthusiasm no more creditable than that displayed by the charlatans of France following Brown-Sequard's announcement about testicular organotherapy, in 1889. (See Editorial: *J.A.M.A.*, May 13, 1939, cxii, p. 1970.) Greenhill and Freed[24] point out that virilism, with growth of hair on the face and body and lowering of the voice to masculine pitch, may be produced when this preparation is used in women. The evoking of masculine characteristics by large doses of testosterone is also indicated by Mazer and Mazer.[25] Korenchevsky and Hall,[26] of the Lister Institute, feel that ". . . this artificial sex stimulation is biologically unnatural, and in patients is medically undesirable."

There is some suggestion, from experimental work, that testosterone and related compounds may counteract the very object of their administration by producing testicular damage. For instance, Moore and Price[27] conclude: "Testosterone and t-propionate cause grave retardation and injury to the testes of young normal males, but this effect gradually declines with age. The propionate, especially, exhibited a reverse order of effects with increased doses, 0.05 mg. often being more injurious than 1.0 mg. daily doses."

Precocious sexual development in younger patients, from the use of the anterior pituitary-like gonadotropic principle, has been reported by a number of workers. Thompson and Heckel[28] conclude: "Changes simulating premature puberty have been produced in three boys, 4, 7, and 9 years old. . . . These changes consisted of an increase in the size of the penis, scrotum, and prostate; increased masculinity; growth of pubic hair; and a change in the pitch of the voice. . . . The treatment for undescended testes with the anterior pituitary-like principle should be stopped before genital growth becomes marked."

The most recent of the synthetics (the synthetic female sex hormone, diethylstilboestrol, or diethylstilbene) was introduced by Dodds and his coworkers, who have done such splendid research with the estrins at the Courtauld Institute of Biochemistry in London. Encouraging experimental and clinical reports announced it to the medical profession, and scientific fervor ran high. Here, at last, was a decidedly inexpensive substance that could readily be produced synthetically and which was more active when given by mouth than the natural estrogenic substance! Immediately a large number of clinicians began to use it in place of the older preparations, and some authorities have gone so far as to say that this new substance satisfactorily replaces the natural estrins and that, before long, ovarian organotherapy will be a thing of the past.

Of course, this statement (unpublished, by the way) may be true, but it sounds suspiciously like the statements one heard about thyroxin—and endocrine history has shown a peculiar habit of repeating itself. Already we are beginning to learn of some of the disadvantages of stilboestrol. Donald[29] describes a number of cases in which toxic effects were produced by a daily dose as small as one milligram. There was an accentuation of physical lethargy, with backache, headache, and vomiting, and a profound degree of nervous and physical prostration, sometimes associated with cachexia and melancholic tendencies. It is only fair to add that Donald states that these effects,

if recognized early, will disappear in three or four weeks when treatment is discontinued. He believes that these reactions are due to an inhibitory effect which the substance has on the pituitary. Another correspondent[30] refers to Donald's report and cites two cases of his own. One patient took 1 mg. of stilboestrol at midnight, and developed headache and retching at 5 A.M. After two more 1-mg. doses, she vomited severely and collapsed.

A more perturbing report comes from France. Varangot[31] gives a rather complete review of the effect of stilboestrol and points out that it has been demonstrated experimentally that stilboestrol is incomparably more toxic than certain of the natural sex hormones. He quotes Lacassagne,[32] who showed that mammary adenocarcinoma could be produced with stilboestrol in predisposed mice. Perhaps more important, however, was the incidental fact that female mice that received 25 gamma of the substance twice a week, either died or were sacrificed at the end of from 95 to 139 days—and *all had icterus.*

Clinically, Varangot has found that many women tolerate stilboestrol badly, and apparently the point of damage is chiefly the liver. There are speedy and delayed toxic reactions, some women manifesting complete intolerance after the first dose. These patients complain of malaise, nausea, and obstinate vomiting, with subsequent vertigo. The delayed reactions manifest themselves in about six weeks, and out of eleven patients treated in this way for one month or more, only three did not show some intolerance. Unfortunately, it is not possible at present to show any relationship between such reactions and the amount of stilboestrol used. Varangot emphasizes that "the toxic effect of stilboestrol in efficacious doses is, therefore, as indisputable as its estrogenic power."

Varangot's contention that, in all probability, the site of toxic disturbances is the liver, is supported by the knowledge that the liver normally destroys many poisons, including excess doses of hormones, and that, in certain liver disorders, excessive hormone therapy is not well tolerated. Evidence in support of the fact that the liver is responsible for the inactivation of estrogenic substance has been produced by Zondek,[33] Golden and Sevringhaus,[34] and others.

In a study on "The Inactivation of Estrogen by the Liver," Israel and his coworkers[35] reported perfusion experiments that led to their conclusion that "the liver, in some manner, either destroys or alters circulating estrogen." Again, Selye[36] concludes that "Experiments on the mouse and the rat indicate that, when given in very high doses, both oestradiol and diethylstilboestrol may exert toxic effects. In the mouse, death may occur under the influence of such oestrogens. The immediate cause of death is either marked icterus resulting from liver damage or acute haemorrhagic pneumonia. In some cases hydronephrosis, due to obstruction of the urinary passage by concrements, was the cause of death. Other pathologic changes observed in such animals are gastric ulcers, adrenal hypertrophy, and pyometra. The total weight of the liver may increase considerably under the influence of chronic treatment with oestradiol or diethylstilboestrol. In most experiments, the naturally occurring oestrogens (oestrone, oestradiol) proved less toxic than diethylstilboestrol."

Early liver damage is notoriously difficult to estimate, and most cases of recognizable hepatic decompensation result from a series of injuries. Apparently many substances, such as alcohol, cinchophen, arsenicals, etc., may, in some cases, be toxic to the liver for months or years before their effects are recognized clinically. Whether or not estrogen must be added to the list of these substances is not yet clearly known, but certainly the evidence suggests great caution in employing the excessive doses that have been advocated by some workers. Particularly does this seem to be true with regard to the synthetic estrin, stilboestrol, since it would appear that, in some instances at least, the synthetic product is essentially a foreign substance and may be more harmful than the natural hormonal products.

Besides his own work, Varangot cites that of Bishop, Boycott, and Zuckerman; Winterton and MacGregor; Ehrhardt, Kramman, and Schafer; and Buschbeck and Hausknecht. He reminds us that the majority of the German workers recommend great reserve in the employment of this substance "as long as the proof of its harmlessness in human beings has not been supplied." Varangot concludes:

"The 4:4 dihydroxydiethylstilbene, a synthetically produced substance, possesses undoubted estrogenic properties. This substance is very active by mouth, but it is certainly toxic, bringing about, in a very large number of cases, manifestations of intolerance that may be early or delayed and which necessitate cessation of the treatment in human therapy, because it is exactly the active doses that have proved toxic." (Translation).

Summary

There is seen in some quarters a strange tendency—what Sir W. Langdon-Brown has termed "the dead hand in medical science"—that wants to sabotage all less "scientific" (i.e., less easily calibrated) preparations as soon as a newer preparation with more easily demonstrated potency is produced. Dodds,[37] himself, shows this attitude in the following statement which he published some years ago: "At the very outset I can assure you, with little fear of justifiable scientific contradiction, that no preparations of the male or female sex hormones, including the corpus luteum hormone, have been available in sufficient quantity to be of any clinical value, and in most cases the preparations were actually negative. It follows, therefore, that we can safely reject the clinical literature on these subjects up to within a very few years ago."

Medical history shows that the "dead hand" of authoritarianism has perpetuated many fallacies and stifled many important truths. For example, the two fundamental principles of iron therapy—the need for large doses, and the preference for a ferrous salt—were well understood by the great clinicians of past centuries (Blaud, Immerman, Osler, *et al.*), but "authority" discovered that there was no scientific evidence for iron, so its use was forgotten for many years and has only recently been rediscovered. Authority also decried the utility of cod-liver oil, for, in an early edition of the vade mecum, "Useful Drugs," it was held up to question as a therapeutic agent by the suggestion that its value as a remedy probably depended entirely upon its nutritive properties.

A similar skeptical attitude is taken by some in regard to certain natural endocrine principles, in spite of a really vast accumulation of clinical evidence in their favor. This is the day of the lab-

oratory investigator, and if a result cannot be measured with an instrument of precision, it is considered not to exist. It seems a good time to remember Sir James Paget's words: ". . . receiving thankfully all that physiology or chemistry or any other science can give us, let us still hold that that alone is true which is proved clinically, and that which is clinically proved needs no further evidence."

Experience with certain synthetic endocrine products, such as synthetic thyroxin and synthetic insulin, illustrates the fallacy of presuming that a synthetic is better than a natural product because it is newer and purer. Endocrine history apparently is repeating itself again, and it appears that therapy with the new synthetic estrogenic substance, stilboestrol, is attended with definite hazards, and the early enthusiasm is being modified by actual clinical observations. Where natural preparations are available, it would seem, at present, that they are to be much preferred. Brilliant as some of the synthetic achievements may be, their clinical value and therapeutic safety must await further investigation.

The therapeutic bazaars will always abound with those crying "New lamps for old." It is an attractive cry, but great caution must be exercised lest the proffered lamp has only its newness to recommend it. Sometimes the new lamp gives a better light. At other times the light may be too dazzling to be useful or, again, the new lamp may actually be worse than the old. As Sir Arthur Hall[38] recently put it, "Time, no doubt, will settle for us, as it has done before, which of our old lamps shall remain and which shall be given up. Meanwhile, we can best encourage the crying of new lamps, any one of which may be very good, not by scoffing at, nor by acclaiming, them merely because they are new, but by keeping an ever-open and receptive mind; taking great care to avoid the mistake made by Aladdin's wife of giving a better in exchange for a worse."

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ENCOURAGEMENT

Intelligence, patriotism, Christianity, and a firm reliance on Him who has never yet forsaken this favored land, are still competent to adjust, in the best way, all our present difficulties.—ABRAHAM LINCOLN.

Internal Saphenous Ligation

An Adjunct to the Injection Treatment of Varicose Veins

By

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THE unsightliness, together with the complicating factors associated with varicose veins of the lower extremities, have brought many people to the doctor in the past few years. The injection treatment of varicose veins is not a new procedure, and the technic and the types of solutions used have become more or less standardized within the past ten years. The operative methods, which were so common prior to that time, have fallen into the discard, even to the extent of being practically in disrepute.

The injection treatment is recognized as an ambulatory method of treating varicose veins and ulcers of the lower extremities. The operative procedure, in a modified form, has returned, with a definite anatomic basis for the operation. The high ligation of the internal saphenous vein is a recognized procedure, which has yet not been commonly adopted by the surgeon in his office practise. The purpose of this discussion is to present a simple technic of ligation, which has been developed in the Varicose Vein Clinic of the King County Hospital at Seattle, Washington.

For the sake of simplicity, in this discussion the term, ligation, is used to include preliminary section of the vein. It has been demonstrated for centuries that simple ligation of blood vessels may allow the lumen at the ligated point to be reestablished, usually by absorption of the ligature, or by its cutting through the vessel. If the vessel is ligated, and then cut, this will not occur. I believe that this point is a conceded axiom in vascular surgery, and it is an important point in the simple technic to be described.

Indications

The patients who require ligation of the internal saphenous vein are those who have a visible or palpable enlargement of this vein, from the sapheno-femoral junction downward to the varices in the lower extremities. The valvular system of these veins is incompetent and the flow of blood is reversed. In such instances we must realize that the injection treatment is not satisfactory, and we may even consider it dangerous, unless we remove, by ligation, the baneful effects of the pressure of the reflex blood from above downward.

Frequently there is a tendency, on the part of some surgeons, to ride a hobby. However, the observations over the past six years, of patients whose veins have been ligated and those who have not had the ligation, show many facts which cannot be disputed. In patients who have had the simple injection of the vein, there is a tendency to recurrence from six months to two years after the injection treatment has been completed. Recurrences in varicose veins are just as likely as recurrences of cavities in teeth, some time following the completion of dental treatment. Obviously this is due to the fact that we have wear and tear upon these particular parts, plus the fact that there is an inherent tendency toward greater weakness in those persons who have varicose veins. Furthermore, it has been my experience that the internal saphenous vein is frequently larger than one anticipates on casual examination. Deep palpation along the line of the vein will very often astonish the surgeon by the discovery of an extremely large vessel.

Three years ago we were recommending occasional ligation of the internal saphenous vein. At the present time, except for localized areas of varicosities, not associated with the internal saphenous system, or in cases of "spider" veins, I believe that ligation should be done in practically all of the patients treated for large varicosities or with ulcers of the leg. This point was well emphasized during the ligation of several veins before a clinic during the past year. These patients were selected for ligation and had previously received injection treatment. Much to my surprise, on exposing the vein for ligation, and on cutting it, a large, loose thrombus was dislodged. This thrombus was present consistently, in a series of ten patients, so that I came to the conclusion that the preliminary ligation of the large internal saphenous vein is not only an essential factor in offering the patient a better prognosis for cure, but also in obviating the possibility of a thrombus or embolus being dislodged from this large vein, following the injection treatment.

Technic

The technic of injection of varicose veins is not much different in the various clinics. However, in a few words, my injection routine is as follows:

The vein is usually ligated prior to the injection treatment. At the time of the injection, the patient is permitted to stand on a table, usually on a level with the eyes of the surgeon. Two points are selected, usually one in the upper and one in the lower portion of the leg.

Using a long-bevel, 24- or 25-gage needle, the vein is punctured and the blood is stripped from the segment, using the fingers of the left hand. The solution is then injected and a gauze pad is applied with a tight adhesive strap, with an "Ace" bandage applied later, for continuous support over the site of injection. I prefer to use a 3½- or 4-inch Ace bandage during the course of treatment. There need be no fear about injecting above the knee, if the internal saphenous vein has been previously ligated. The solutions which have been employed are listed in the following outline.

The patient selected for ligation is placed in an upright position, and the uppermost palpable point of the distention of the internal saphenous vein is outlined and marked transversely on the thigh. The position and course of the vein below this point is also marked, using a contrasting dye, such as methylene blue or gentian violet (if the transverse mark is red), so that the result is a mark in the form of a capital letter "T." The area is then surgically prepared, shaving being a necessary preliminary procedure.

I employ local anesthesia by infiltration, using a 1- or 2-percent procaine solution, *without* Adrenalin (epinephrin). A small incision is made, which varies from 3 to 5 centimeters in length. The skin and fat are separated, using blunt dissection, thus exposing the vein. Not infrequently some difficulty is encountered in locating the vein through the small incision, due chiefly to the collapse of the vein with the patient on his back. The retraction of the wound edges with a mastoid retractor, and careful use of a syringe and small needle will often be helpful in locating this vein. One must avoid going too deeply and entering the deep femoral vessels. Not infrequently, with one finger in the wound, and percussing along the course of the vein, an impulse will be transmitted —another aid in locating this vein through the incision.

When the vein is located, a segment about 2.5 centimeters in length is stripped. A small aneurism needle is helpful at this point. The vein is then ligated, using No. 0 or No. 1 chromic catgut. Before cutting the vein between these ligatures, a second transfixion suture is placed to obviate slipping of the double tie, as shown in Fig. 1. Closure of the skin and subcutaneous tissue is accomplished with either dermal or catgut, using a combination of a deep tension and superficial approximating stitch, to obliterate the dead space in which some serum frequently accumulates. A pad of gauze and tight encircling strips of adhesive tape complete the operation. I do not think it advisable to ligate the veins of both legs simultaneously.

Much emphasis has been placed, by different writers, on the elaborate tests which should be made before ligating the vein, in order to determine the presence or absence of a deep saphenous thrombosis. I feel that such tests can be performed by simple observation of the extremity, in the majority of instances. If massive edema is not present, it seems unnecessary to go through such procedures, because, if deep venous thrombosis is present, blood is obviously not returning through the incompetent superficial venous system, therefore the deep veins must be functioning or moist gangrene would be present.

Ligation of the internal saphenous vein has also been recommended for acute thrombo-phlebitis. Edwards, in *Surgery, Gynecology, and Obstetrics* for February, 1938, states that phlebitis is but a complication of varicose veins, and that immediate ligation of the saphenous vein, at the saphenofemoral junction, should be performed, followed by regular exercises and, if necessary, by the application of heat. He even suggests the injection of sclerosing solution if some of the varices remain open. This should be given in small doses, because the inflammation may be temporarily increased. He reported 63 cases treated in this way, with entirely good results. The chief advantage of this treatment is the brief period of disability, varying from one to three weeks. He also feels that there is less chance of pulmonary embolism, and that the operation has a tendency to prevent further damage to the valves of the perforating or deep vein. The prevention of recurrence of phlebitis is also obviated by ligation of this vein.

Experience has taught us that more and more persons suffering from varicose veins can be better treated by immediate preliminary ligation, to prevent the complications which have been previously described.

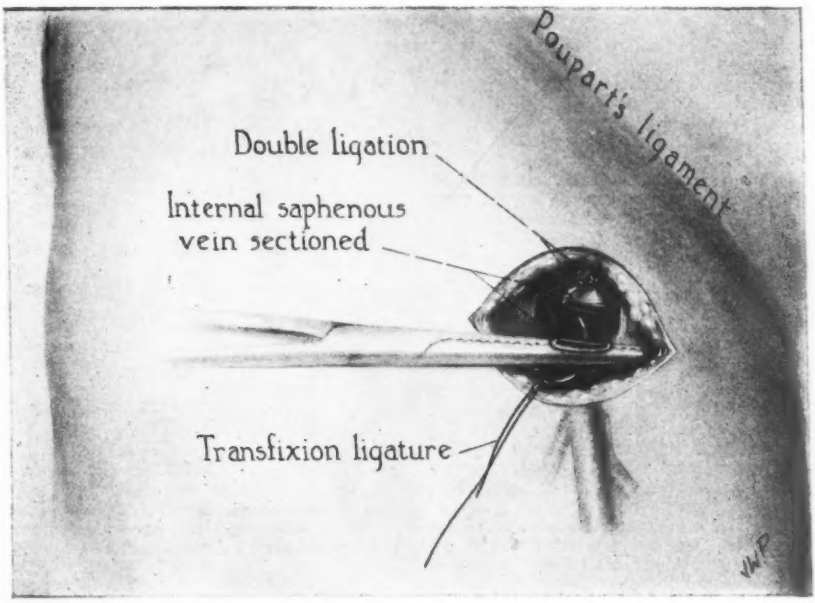

Fig. 1: Technic of Saphenous Ligation.

The following outline has been included in the list of Routine Procedures for Interns at the King County Hospital in Seattle:

Varicose Veins

Outline of Treatment

I. *History:*

1.—Inquire about the cause, time of onset, family history of varicose veins, and the presence of infection, such as milk leg.

2.—Systemic diseases:

A.—Tuberculosis.

B.—Thyroid disturbances.

C.—Cardiovascular-renal disease.

D.—Syphilis (not a contraindication).

II. *Physical Examination:*

1.—General.

A.—Urinalysis.

B.—Blood pressure.

C.—Edema of the extremities.

D.—Abdominal tumors.

2.—Contraindications:

A.—Thrombophlebitis less than eight or ten months previously (now disputed).

B.—Pregnancy, after the sixth month; before that use only sodium morrhuate and *never quinine solutions at any time during pregnancy.*

C.—Tuberculosis.

D.—Toxic goiter.

E.—Current upper respiratory infection.

F.—Severe cardiovascular-renal disease.

G.—Severe edema, indicating possible thrombosis of the deep venous circulation.

3.—Trendelenburg test: Elevate the extremity and put pressure or tourniquet over vein at the sapheno-femoral opening, and then lower the leg.

A.—*Positive,* slow or no filling of the varicosities, except on release of pressure.

B.—*Negative,* rather rapid filling of the varicosities, due to defects in communicating veins.

C.—*Double,* combination of the two above.

D.—*Nil,* dilated saccules with no valvular defects. (Note: The practical significance of these tests is not to determine the patency of the deep veins, which will be shown by the edema, but to determine the site or sites for ligation and to offer a sound prognosis).

III. *Forms of Treatment:*

1.—Injection.

A.—Solution.

a.—Sodium morrhuate, 5-percent solution, from 2 to 5 cc. (Safest in the presence of some allergic manifestations).

b.—Quinine and urethane, 1 to 4 cc., after a preliminary test dose. (Not to be used in pregnancy. Transient vertigo is annoying).

c.—Sodium morrhuate, 5 percent; quinine alkaloid, 2 percent; benzyl alcohol, 2 percent. This is the best sclerosing agent, with fewest untoward effects.

B.—Technic:

a.—Use a long-bevel, 24 or 25 gage needle.

b.—Strip blood from the segment with the fingers.

c.—Inject the solution and apply gauze and adhesive tape, as well as a bandage, for pressure, over the site of the injection.

d.—It is best to use Ace bandage, 3½ or 4 inch width, during the course of treatment.

e.—Inject twice weekly, unless the reactions are too severe.

f.—Spider veins are best treated with a fine needle and sodium morrhuate (5% solution).

g.—It is safe to inject above the knee, if the saphenous vein has been ligated.

2.—Ligation:

A.—Mark the upper level of the vein, near the sapheno-femoral opening, as a letter "T," with contrast dye.

B.—Expose the vein by a transverse incision, under local anesthesia. A mastoid retractor and ligature carrier are helpful. Expose a two-inch segment.

C.—Place four ligatures of No. 0 or 1 chromic catgut, cut the vein, and make two ties on either side.

D.—Close the skin.

E.—Apply a tight adhesive dressing over the pads. (*Caution:* Do *not* ligate both veins simultaneously.)

3.—*Ulcer treatment:*

A.—Find the feeder vein and inject it close to the ulcer. Induration is not a contraindication.

B.—Edema should be treated with Unna's boot.

C.—Clean the ulcer with benzine and paint it with 10-percent silver nitrate or with gentian violet solution.

D.—Cross strips of adhesive tape sometimes are of value.

E.—A rubber sponge (McPheeter's "rubber heart") under the boot is of value over the ulcer.

IV. *Complications:*

1.—Transient vertigo, from quinine, should be treated by rest, or, if serious, avoid using this drug.

2.—Leaking of solution into the tissues is best treated by immediate injection of large amounts of saline solution; or withdraw some blood and infiltrate the area, to avoid the occurrence of injection slough.

3.—Injection slough, if developed, is best treated by silver nitrate in solution or stick, and excision of the area, as soon as it is demarcated.

4.—Thrombophlebitis or periphlebitis following injection is best treated by elevation of the leg and moist heat, such as soaking in a bath tub. Do not inject again while the leg is red and tender.

5.—Embolism is best prevented by keeping the patient ambulatory; by not injecting bed-ridden patients; and by avoiding undue massage of thrombosed veins.

Conclusions

A simple technic for ligation of the internal saphenous vein is an important adjunct to the injection treatment of varicose veins.

An outline of the procedure to be used in the treatment of varicose veins in office practise is extremely helpful. Such an outline has been found so practicable that it has been adopted as a routine procedure for interns at the King County Hospital System in Seattle.

Patients with large varicosities of the legs, or with ulcers, should always have a preliminary ligation of the internal saphenous vein at the highest possible point.

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The Importance of the Liver Functions

By

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SINCE the beginning of time, man has been waging a relentless battle against disease and body deterioration. Even before the days of Hippocrates, medical men worked, studied, experimented, and practiced, with but one aim: "An understanding of cause and effect in the limitless ramifications of the anatomical structure of the human body; that is, the whys and wherefores of resulting manifestations."

Great strides have been made in a definite understanding of etiology, diagnosis, prophylaxis, and treatment and, in the past few years, a most gratifying advance has taken place in the better evaluation of the functions of the gastro-intestinal tract.

The keystone of this important system is the liver. Every organ of the body has its definite active functions, each being limited in the number of its activities. Not so with the liver, for there is hardly a part of the body that is not directly or indirectly affected by the functioning of this great *gland*.

It is conservatively stated that the liver has from sixty to one hundred distinct activities, and that every other major system is definitely influenced by them. The most profound dependence on the liver is that exhibited by the intestines, both large and small.

A healthy body depends largely on the quality of the blood that circulates through it, and it is at that very point that Nature, in its far-seeing beneficence, built for the future.

Now, let us get out our "Anatomy" and follow through, for we are about to refresh our memories on something that we once knew and probably did not remember because its importance was not appreciated.

After the blood leaves the heart, to be distributed to every part of the body, it does its duty in nourishing and healing, but must go back to the starting place for another circulatory cycle. Let us follow the blood on its return journey.

Every drop of this life-giving fluid that circulates above the diaphragm returns direct to the heart through the various veins that form or empty into the superior vena cava. Below the diaphragm, however, there is a different picture, showing how well Nature has calculated. All the abdominal blood is returned direct to the heart through the inferior vena cava, *except* the blood from the digestive viscera. This blood is gathered by the superior mesenteric vein on the right, and the inferior mesenteric and splenic veins on the left, from every organ of the gastro-intestinal tract, the superior mesenteric and splenic veins joining to form the portal vein, which enters the liver, and every drop of blood from the digestive system must circulate through that organ to be cleansed and detoxified. It is then poured into the inferior vena cava through the hepatic veins, and so reaches the heart.

The effect of liver activity on the blood from all the rest of the body is through the mixing, in the azygos veins, the heart chambers, and the general circulation of the blood that has passed through the liver with that which has circulated elsewhere. If hepatic detoxification and purification are normal, the blood activated by the liver will help detoxify the balance of the body fluids, and a healthy blood stream will, or should, be the result. Derangement of one, or more, of the liver functions means partially purified hepatic blood, which will pollute the entire blood stream, with a proportionate lowering in the quality of the blood supplying every body structure.

In this body mechanism, *one fact stands out.* Every drop of blood that supplies the digestive tract passes through the liver for detoxification and purification in *every circulatory cycle;* whereas all the rest of the blood depends upon the mixing process or upon the action of phagocytic leukocytes or chemical reactions to remove microorganisms and toxins.

Therefore, gastro-intestinal dysfunctions, especially deficiency in normal liver activity, may be responsible for many systemic diseases, regardless of what vital systems are affected, and reduced body resistance must result in conditions that favor infectious invasion. It is clear that the passing of this blood through the liver was designed by Nature as its first line of defense against disease and body deterioration.

It is logical to conclude, therefore, that detoxification of the blood stream is one of the most important means of maintaining or restoring body resistance, and that normal liver function should be the fundamental thought and goal in preserving the balance so cleverly instituted by Nature's foresight.

To achieve this goal, any liver medication should tend to promote greater cell activity, and this appears to be accomplished with liberal and sustained doses of the double calcium salt of benzoic acid and the benzyl ester of succinic acid*.

It is obviously difficult to explain the rôle of the benzyl ester of succinic acid in this respect, unless one realizes that succinic acid is an outstanding oxygen carrier, is changed in the liver into fumaric acid, and the latter regenerated into the original succinic radicle.

Liver-cell activity ensures an adequate supply of pure, fresh bile, in quantity sufficient to control intestinal function. In a search for the medication that would produce a favorable cholagogic and choleretic action, a prominent New York gastro-enterologist has been studying this product in liver stimulation for the past year, and his findings are later to be published.

Introducing a solution of the product through a duodenal tube, he reports a very definite improvement in the quantity and quality of the bile, as well as greater rapidity in its manufacture and flow,

*Manufactured and sold, under the name Subenon, by the Seydel Chemical Company, Jersey City, N. J.

with no untoward results or reactions observed. Other experiments show that the drug can be used orally, with satisfactory effects.

As detoxification of the blood stream and elimination of waste matter depend largely on an adequate supply of healthy, active bile, the significance of this form of treatment is obvious.

156 Tenafly Road.

The Treatment and Prevention of Ivy Poisoning

By

J. C. Attix, M.S., D.D.S., M.D., Pharm.D., Philadelphia, Pa.
Emeritus Professor of Chemistry and Toxicology, Temple University
and
John C. Rommel, M.D., Philadelphia, Pa.

In recent years a very considerable interest has been built up around dermatitis caused by poison ivy (*Rhus toxicodendron*). A large number of papers have appeared in the medical literature, by some of the outstanding skin specialists, and several pharmaceutical houses have been advertising, detailing, and otherwise calling the attention of physicians to various preparations of rhus tox. for the prevention and treatment of poison ivy dermatitis.

In the bibliographies published by the manufacturers, the names of some noted skin specialists appear, but none of the papers were published prior to 1919 (*J.A.M.A.*, 73:1213), when J. F. Schamberg, of Philadelphia, is purported to have used the tincture of rhus tox. internally, for immunization against ivy poison in susceptible persons, and with good results. A. Strickler, of Philadelphia, we believe, was the first to use injections of rhus tox. for the treatment and prevention of ivy poisoning.

Seven years before these observers published their papers on the subject, J. C. Attix, of Philadelphia, gave the treatment and prevention of poison ivy dermatitis by the use of rhus tox. preparations, in a paper in the *Medical World* (1912), but no mention is made of it in any of the references which we have seen.

Almost as many remedies have been used in the treatment of this condition as exist in the late works on materia medica and therapeutics. We have made careful inquiries of many physicians during the past five years, among the regulars, the homeopaths, and the eclectics, and scarcely any two of them have suggested the same treatment. It might be of interest to mention some which have been suggested as local applications: Copper sulphate, or "bluestone"; "sal soda," or normal sodium carbonate; zinc sulphate, or "white vitriol"; and common salt; any of these to be applied in the crystalline form or in various strengths of aqueous solutions. Calamine, either as a powder to be dusted on, or suspended in water, is highly recommended by many. Sodium hyposulphite (thiosulphate) is a favorite remedy with many, used in an aqueous solution of from ½ to 1 dram (2 to 4 Gm.) to the ounce (32 cc.) of water, either frequently mopped on the affected parts with cotton, or these areas covered with gauze kept continuously wet with the solution.

Lead water and laudanum is still a favorite remedy with many, applied as is the hyposulphite of soda, and many cases seem to yield quite readily to it. It seems to allay the irritation more quickly than most of the other applications used. The ordinary lead water and laudanum solution which is most frequently used is the regular formula: 4 parts of lead water (liquor plumbi subacetatis or Goulard's extract); 16 parts of water; and 1 part of laudanum. Sweet spirit of niter is often used locally, and seems to be serviceable; but it is likely that any good accruing from it is due to the alcohol which it contains. Many use alcohol and water, in various proportions, and rely upon this entirely.

Attix has found lead water and laudanum solution, with ½ to 1 dram (2 to 4 Gm.) of sodium hyposulphite to the ounce of this solution, very effective in most cases; but he prefers to make the lead water and laudanum solution with 1 ounce of grain alcohol to the pint.

Since this is an auto-inoculable disease, and one where the various solutions are applied on gauze, the parts should be as thoroughly cleansed as possible and the dressings removed and new ones applied daily or oftener.

In many cases the extract of *Grindelia robusta* acts almost as a specific. The fluidextract (N.F.), which is the only official preparation, is diluted with from 10 to 15 parts of water and either mopped on frequently, or gauze saturated with it is applied to the parts and kept wet.

The lead water and laudanum, sodium hyposulphite, alcohol, and the grindelia solutions have been the most satisfactory remedies tried, once the disease is established.

Prevention of Ivy Poisoning

In these days of preventive medicine, we should look for something better, and from his own experience Attix is convinced that many of these cases can be prevented. Not a single case of failure has been observed by him thus far, in a study of such cases during five years.

At Willow Grove Park, near Philadelphia, where Attix has been stationed during the summer season for eight years, a large number of cases have been studied. A number of Philadelphians have homes adjacent to the park and spend the summer there. Besides these, there are nearly a thousand employees in the park, and between 200 and 300 trolleymen. *Rhus toxicodendron* grows most exuberantly in this locality, and a large number of cases are seen each summer.

Attix was informed, a number of years ago, that individuals who gather rhus and make the medicinal preparations from it take small doses of it internally to immunize themselves, and that they very rarely, if ever, suffer from poisoning by it.

It was along these lines that the condition was studied, and in such patients as suffered from poisoning year after year, and who could be controlled and impressed with the fact that they could escape it altogether (probably) if they took treatment in the spring or as soon as they came out to the Grove.

Small doses are used—1 dram (4 cc.) of the tincture of rhus tox. to 4 ounces (120 cc.) of water or lactated pepsin; an adult to take 1 teaspoonful, in a wineglassful of water, before meals; children to take 10 to 15 drops of the same solution three times a day. This can be very easily prescribed and taken.

Another point of interest is that the *Rhus toxicodendron* and *Grindelia robusta* grow side by side in this locality. Nature not infrequently produces or supplies the poison and the antidote in the same locality!

BACK TO FEUDALISM

When people were trying, with less rather than more understanding of where they were going, to get out of the feudal system and gain their liberty, they knew that their success depended on their ability to gain possession of property. Property meant freedom.

Gradually property rights were created and the feudal system began to disappear. With property rights came political rights. The absurdity of the present day is the attempt to reverse this evolution, both in theory and reality. The first blast of nonsense was to create a political distinction between human rights and property rights, as if they were contradictions instead of companions.
—Editorial in CHICAGO TRIBUNE, Feb. 19, 1939.

THE FALL OF REPUBLICS

Republics are created by the virtue, public spirit, and intelligence of the citizens. They fall when the wise are banished from the public capitals because they dare to be honest, and the profligate are rewarded because they flatter the people in order to betray them.—JUSTICE JOSEPH STORY.

NO SECOND-HAND DAYS

There is no such thing as a made-over, second-hand or slightly used day. Each day is brand new when it comes to you. It is a brand new factor in your life. You may use it as a beginning or an ending—you may use it for play or for work; but remember, when you are finished with a day, there is no laying it on the shelf for future use. It is gone.—Democrat-Message, *Mt. Sterling, Ill.*

RELIGION

The findings of psychology, in respect to personality and happiness, are largely a rediscovery of old religious truths. I see religion as an aggressive mode of life, by which the individual becomes the master of his environment, not its complacent victim.—HENRY C. LINK, Ph.D., in "The Return to Religion."

WEAK MINDS IN WEAK BODIES

I have spent ten cheerless years in studying the relation of physique to intelligence and to economic and educational status in the inmates of American penitentiaries, jails, and insane asylums. Every jot and tittle of the vast mass of evidence which I have analyzed indicates that inferior biological status is inextricably associated with diminished intelligence and that the combination of the two is mainly responsible for economic inadequacy and anti-social conduct.—PROF. E. A. HOOTON, *Anthropologist, Harvard Univ.*

Nonoperative Orthopedic Technics*

I. The Shoulder

By
RUSSELL A. WINTERS, M.D., Chicago, Ill.

INDUSTRIAL physicians are doing much along nonoperative lines, and the general consensus in treatment is: "I do not care what it is called, as long as it benefits my patients. They are entitled to relief *now*, instead of the lackadaisical handling that has been the rule in most offices."

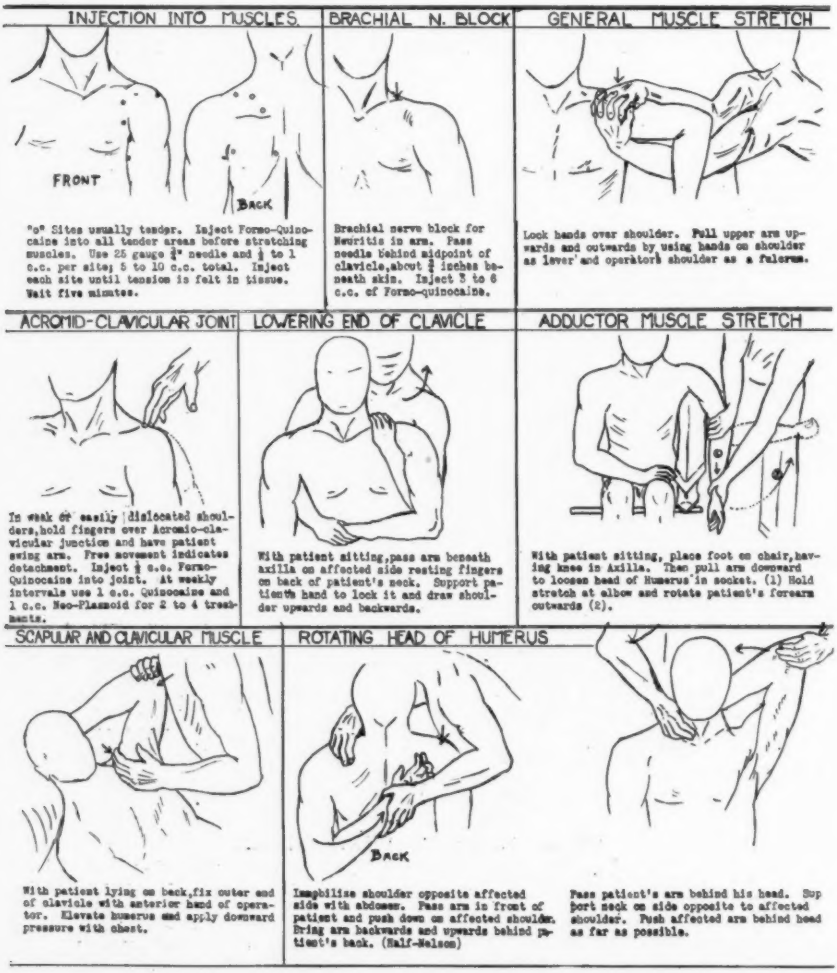
Brachial neuritis, subdeltoid bursitis, injured tendon, etc., are terms many times erroneously applied to shoulder conditions that can be relieved immediately.

Past infections in the head region will also leave their scars in muscles affecting this region, which are manifested in shoulder disorders. Where active infections are present, the associated technics are indicated as palliative measures and their benefit lasts from two weeks to three months.

If acute myositis is present in conjunction with arthritis, the injections are indicated, but *the stretchings should be avoided.*

Since the accepted procedures in shoulder treatment, either from skin and heat absorption or from systemic medications, are purely palliative, specific treatment introduces a new phase into this field.

5 N. Wabash Ave.


INJECTION INTO MUSCLES
FRONT
BACK
"o" Sites usually tender. Inject Formo-Quinocaine into all tender areas before stretching muscles. Use 25 gauge ½" needle and ¼ to 1 c.c. per site; 5 to 10 c.c. total. Inject each site until tension is felt in tissue. Wait five minutes.
BRACHIAL N. BLOCK
Brachial nerve block for Neuritis in arm. Pass needle behind midpoint of clavicle, about ½ inches beneath skin. Inject 5 to 6 c.c. of Formo-quinocaine.
GENERAL MUSCLE STRETCH
Lock hands over shoulder. Pull upper arm upwards and outwards by using hands on shoulder as lever and operator's shoulder as a fulcrum.
ACROMIO-CLAVICULAR JOINT
In weak or easily dislocated shoulders, hold fingers over Acromio-clavicular junction and have patient swing arm. Free movement indicates detachment. Inject ½ c.c. Formo-Quinocaine into joint. At weekly intervals use 1 c.c. Quinocaine and 1 c.c. Neo-Plasmoid for 2 to 4 treatments.
LOWERING END OF CLAVICLE
With patient sitting, pass arm beneath axilla on affected side resting fingers on back of patient's neck. Support patient's hand to lock it and draw shoulder upwards and backwards.
ADDUCTOR MUSCLE STRETCH
With patient sitting, place foot on chair, having knee in Axilla. Then pull arm downward to loosen head of Humerus in socket. (1) Hold stretch at elbow and rotate patient's forearm outwards (2).
SCAPULAR AND CLAVICULAR MUSCLE
With patient lying on back, fix outer end of clavicle with anterior hand of operator. Elevate humerus and apply downward pressure with chest.
ROTATING HEAD OF HUMERUS
BACK
Immobilize shoulder opposite affected side with abdomen. Pass arm in front of patient and push down on affected shoulder. Bring arm backwards and upwards behind patient's back. (Half-Nelson)
Pass patient's arm behind his head. Support neck on side opposite to affected shoulder. Push affected arm behind head as far as possible.

*To be presented in six parts.

Physical and Office Therapy and Radiology

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FOR RADIOLOGY
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FOR OFFICE THERAPY
Ralph L. Gorrell, B.S.M., M.D., D.N.B.

Uniterminal Electrocoagulation of Hemorrhoids

By
A. H. VAIDYA, D.PHY., D.E., Bombay, India

BY uniterminal coagulation is meant the destruction of the varicosity without injury to the adjoining structures and damaging the underlying tissue, and with minimum destruction of surface tissue.

My experience is based on study and the results obtained in 51 cases so treated. This treatment has been successful in the type of hemorrhoids that may dilate, collapse, rupture, and bleed or protrude during defecation or physical exertion.

Fig. 1: Coagulating electrode with double needle.

The *contraindications* to this method are: proctitis with edema; thrombosed hemorrhoids; and prolapse of the anal canal.

The technic used is based on the theory of destroying the tumors without destroying the adjoining structures. In order to do this I have used a special electrode (see Fig. 1).

Technic

The preparation of the patient should be the same as that for any minor anal operation. In cases where the hemorrhoids cannot be protruded, a Brinkerhoff speculum must be used.

Anesthesia is obtained by the topical application of 5-percent Butyn solution. It is most convenient to operate when the patient is lying on the same side as the hemorrhoid.

When the anesthesia is complete, the electrode can be introduced into the hemorrhoid without pain. The insertion is made at a convenient point and at an oblique angle, so as to enter the lumen of the varicosity in its long axis. It may then be advanced in the lumen of the vein until resistance is met, which indicates contact with the rectal wall. The electrode is then slightly withdrawn, to avoid injury to the structures offering resistance. The deep musculature in this region should be avoided.

The diathermy apparatus must be operated with a foot switch, and regulated to register not more than 500 milliamperes on a dead circuit. Blanching and coagulation of the mucous membrane at the point of insertion are the signal to stop.

When the electrode is withdrawn, a slight tug is felt. The electrode points will be covered with thin films of coagulated blood. Frequently there is no bleeding from the puncture; at most there may be a few drops of blood. If more than a slight oozing of blood occurs, a light fulguration touch will check it. It is my practice not to treat more than two hemorrhoids at one time.

The speculum should be gently withdrawn, the hemorrhoids and mucous membrane are replaced as high up as they will go with the gloved finger, and some quantity of astringent ointment is introduced into the rectum.

Care should be exercised not to insert the electrode too deeply, which may injure the sphincter or over-coagulate the tissue.

Since each needle acts as a pole of the electrode, the current passes between them only, and it is only this portion of the submucosa that is coagulated. Coagulation begins at the needlepoints and travels backwards to the site of the puncture. When properly applied, there is no coagulation on

the surface of the mucosa, except a line, at the site of puncture, between the needles.

The pain during defecation is negligible. A few drops of blood during the defecation may be seen for two or three days. The patient is told to apply Percanial ointment after every defecation, and to take about an ounce of mineral oil daily. Another treatment may be administered after a fortnight, and so on until the case is completed.

This procedure is absolutely safe and painless and, regardless of what takes place during and following the treatment; the hemorrhoidal veins lose their abnormal distensibility and propensity to rupture, bleed, and protrude during defecation. The clinical results have been entirely satisfactory.

250-252 Kalbadevi Road.

★ *Notes and Abstracts* ★

Nonoperative Treatment of Lumbo-Sciatica*

REFERRED leg pains from lesions of the sacro-lumbar spine are everyday problems of the general practitioner. The resulting lumbo-sciatica is too often accepted by the middle-aged patient with the resignation accorded to false teeth and gray hairs. Rest, home remedies, and the hot-water bag carry the sufferers through their acute attacks. They ignore the constant intermediate chronic ache, until eventually they reach the cane-supported, limping stage of semi-invalidism. Yet with proper medical guidance and treatment, they could have many years of comfort.

Poor posture is the usual predisposing cause of lumbo-sciatica. The spinal tilt puts an added traction on related ligaments and nerves, with pain referred to their distal branches. Prostatitis, uterine retroversion, constipation, and foci of infection, all may play a small part, but the basic cause is the chronic static trauma of poor posture, which may result from flat feet or functional muscular insufficiency.

Symptoms: Pain is transmitted down the leg along the great sciatic and gluteal nerve distributions. In mild cases, there is morning back stiffness and muscle fatigue, followed, as the day goes on, by pain radiating over the sacroiliac joints, buttocks, and down the backs of the legs. The pain is intermittent and is aggravated by sudden body twists, lifting, exposure to wet and cold, or a toxic focus.

These cases may often be relieved by minor surgical procedures. Those patients with constant pain, sensory and motor reflex changes, and contraction of fascial planes and muscle groups, usually require a major surgical operation for relief.

Treatment: Eliminate all possible etiologic factors, toxic foci, faulty posture, and flat feet; and carry out these measures to absorb local fibrosis in and around the nerve:

1.—Heat and massage.
2.—Passive motions.
3.—Nerve stretching.
  A.—Postural and open methods.
  B.—Endoneural sciatic injections.
  C.—Epidural intrasacral injections (caudal).

Occasionally a therapeutic miracle follows the extraction of an abscessed tooth, desiccation of an infected cervix, or insulin therapy for a diabetic patient.

Exercises: Have the patient go through a series of spinal and hip flexion exercises (extensions and torsions), gradually to strengthen the spinal muscles and loosen ligaments and nerve roots (bend forward and backward); stand and twist from side to side; stand and raise the extended leg; squatting position to standing). A hot sitz bath before retiring is of value. *Those exercises which give pain are the ones to be persisted in. Golf is good exercise.*

Boards should be placed across the bed frame, so that the patient will not sleep on a sagging bed.

The middle-aged woman should wear a moderately high-heeled shoe, with a broad walking surface. The elevation of the heels necessitates a better posture to counterbalance. Shoes should be worn that will correct the arch drop.

Heat of any kind (hot lamp, electric pad, hot bath, infrared lamp) may be used as a means of temporary relief. *Passive motion*, under spinal or general anesthesia, involves the freeing of adhesions by spinal flexion, rotation, and hyperextension, and by flexion of the extended leg on the abdomen, the toes carried even as far as the scalp. With the exception of the last motion, which stretches the sciatic nerve, active motions seem more valuable than passive.

Direct intraneural injection: Fluid may be injected directly into the sciatic nerve by injecting two inches deep, at a point one finger's breadth lateral to the medial third of a line, drawn across the buttocks, from the sacrococcygeal junction to the inferior tip of great trochanter. One-percent Novocain (procaine) solution is injected directly into the nerve.

Caudal injection (epidural endosacral injection) can readily be done by the general practitioner who studies the technic as described in many texts. One hundred (100) cc. of a 5-percent Novocain solution are slowly injected into the caudal space at the end of the sacrum. The patient rests on the table for half an hour, and is then sent home to rest for 24 hours, while heat is applied over the site of injection. This simple procedure will relieve over 70 percent of patients suffering from low back pain and sciatica.

W. M. STEEL, M.D.
Philadelphia, Pa.

*Am. J. Surg., April, 1939.

X-Ray Therapy in Sinus Infections

FOR fifteen years, a preliminary sinus film has been made on every patient sent in for chest examination, unless the pathosis found seemed sufficient to account for the symptoms, and in *all* cases in which there was an increase in the lower-lobe bronchovascular shadows. These films disclose many undiagnosed or "cured" sinus infections.

Almost every cold that does not clear up within a reasonable time is a sinus infection, possibly due to allergy. The taking of diagnostic films enables the condition to be diagnosed earlier and to receive care earlier.

Many cases can be definitely benefited by roentgen-ray therapy, especially those in the subacute stage, in which symptoms have been present for from several months to several years, with history of a cough, recurring colds, and roentgenographic findings of cloudy ethmoids. Washing the antra causes no change in their roentgen-ray appearance.—F. M. HODGES, M.D., in *Radiol.*, June, 1939.

The Nature and Treatment of Certain Types of Referred Pain*

Lumbago, "rheumatism," neuritis (such as acute or chronic sciatic neuritis, brachial neuritis, intercostal neuritis), **neuralgia,** radiculitis, **intractable headaches,** and even arthritis are the types of cases referred to in this article.

The vast majority of such patients are of a "rheumatic" type. They are probably mostly fibrositic in origin and are usually *easy to cure, either by injection of large quantities of a weak solution of a local anesthetic, by manipulation, or by a combination of both.*

In cases of chronic neuralgia or neuritis, careful examination with a very small exploring electrode will reveal exquisitely sensitive local spots on the skin in the region of or central to the pain. They are as small as the size of an ordinary match head.

For many years, Leriche has injected local anesthetics around arthritic joints. He has found that the local relief of periarticular pain has lasted much longer than would be expected from the use of a local anesthetic; that after each injection the period of relief tends to be longer; and that eventually many cases are relieved more or less permanently. Kellegren has found, in many such cases of what he calls "somatic pain," that there are tender points to palpation, either inside or outside of the painful area and situated between the painful area and the spinal cord. Injection of these points with a local anesthetic often abolishes the pain, temporarily or permanently.

If, instead of trusting to the locating of these points by pain on palpation, he had accurately identified them with the faradic current, I think he would have had a greater proportion of successful results. I have found that, if one can locate a point which is tender to deep palpation and to a faradic current, cure can practically be guaranteed.

If the mild faradic current does not cause pain, the amount of current should be continuously increased to the limit of the patient's tolerance. Often a heavy current will pick out a point of pain which a light current will miss. This indicates that the lesion is deeply seated—three inches or more below the body surface. In spite of this fact, the faradic sensitivity is likely to be strictly localized to an area ¼ inch or less in extent on the skin surface. Experience only can teach where the area of faradic sensitiveness may be. A pain in the calf may be referred from an area adjacent to the lumbar vertebrae.

The points of faradic sensitiveness are marked with a skin pencil; the skin is painted with an antiseptic; and a wheal raised by injecting a few drops of Novocain (procaine) solution. A 10 cc. syringe, filled with a ½ percent Novocain solution and fitted with a 2½ inch needle, is forced through the anesthetized spot exactly at right angles to the skin surface. At some point in its downward progress a sharp pain is caused, which often radiates to the site of the pain previously complained of. At and around this point 5 cc. of the solution are injected. The needle is then driven deeper, and usually about an inch deeper another painful spot is encountered, which is injected with 5 cc. of Novocain. The joints, including vertebral joints, in the neighborhood are manipulated, often to the accompaniment of sharp snaps as the fibrous tissue gives way. Deep massage to relieve pain, by disrupting adhesions, is then given.

P. P. DALTON, M.R.C.S., L.R.C.P.
London, Eng.

Br. J. Phys. Med., June, 1939.

Look for THE LEISURE HOUR among the advertising pages at the back.

Diet in Rheumatic Diseases

ACUTE rheumatism should be treated with a diet high in protein and in iron-rich foods. Liver and kidney dishes may be added for their antianemic value. There is some evidence that the restriction of carbohydrate foods is beneficial.

Chronic rheumatism and fibrositis may be treated with a low-salt diet. A full diet should be given during the exhausting early stages and carbohydrate foods should be restricted during the later stages, when panniculitis and obesity are apt to occur.

Hydrochloric acid may be necessary for the frequently coexistent achlorhydria in rheumatoid arthritis. Vitamins are necessary, though not necessarily in capsule form. Rather, the diet should be well balanced, with citrus fruits, vegetables, protein, and a small amount of starchy and sweet foods.—J. A. NIXON, C.M.G., M.D., in *Brit. J. Phys. Med.*, Oct., 1938.

X-Rays in Inflammatory Lesions

IN the treatment of inflammatory conditions, *moderate* or *small* doses of roentgen rays are employed, as contrasted to the heavy doses employed in the treatment of malignant tumors.

Following the administration of roentgen rays in an *acute* inflammatory process, pain is frequently relieved in from 12 to 48 hours. When treated before the onset of suppuration, the course

of an acute inflammatory lesion is usually altered. Many are aborted and rapidly recede to normal. When treated after the onset of suppuration, the suppurative process is more or less hastened. The dose varies between 50 and 200 roentgens.

Chronic inflammation: X-Ray treatment may be beneficial to tuberculous adenitis, iritis and keratitis, actinomycosis, infectious arthritis in the active stage, and certain types of osteomyelitis. The dose employed varies from 250 to 450 roentgens.—E. LEDDY, M.D., in *Arch. Phys. Ther.*, Feb., 1939.

X-Ray Treatment of Acute Infections

A NUMBER of cases of appendicitis, complicated by peritonitis, have been remarkably improved following small doses of roentgen rays. Other infections also respond well; as shown in the accompanying table:

Diagnosis	Cases	Living	Dead	Mortality
Peritonitis	24	17	7	29%
Streptococcic cellulitis	20	20	0	0
Surgical mumps (parotitis)	14	13	1	7.1%
Erysipelas	2	2	0	0
Mastoiditis	3	3	0	0
Ludwig's angina	4	4	0	0
Gas gangrene	12	11	1	8.3%
Phlebitis	1	1	0	0
Pneumonia (lobar)	7	7	0	0
Bacteremia	1	0	1	100.%
Prophylactic (badly contaminated wounds; compound fractures)	9	9	0	0
Totals.....	100	90	10	10

Postoperative peritonitis responds dramatically, in some cases.—JAMES KELLY, M.D., in *Radiol.*, June, 1939.

Short-Wave Medical Diathermy*

EXPERIMENTAL and clinical work indicates that (1) short-wave diathermy will produce heat in the bone marrow of living animals, although not so high a temperature as that produced in the muscles closer to the pads (in other words, that the amount of heat produced decreases as the part becomes thicker); (2) wave length plays no specific rôle; (3) short-wave diathermy should not be used in the presence of acute inflammatory processes such as non-draining cellulitis, acute infectious arthritis, and acute pelvic infections; in any condition in which there is a tendency to hemorrhage; over areas in which the sensory nerves for heat have been damaged; through the abdomen, back, or pelvis during pregnancy or menstruation; over areas where malignant growth is suspected; and in diseases or injuries in which simpler methods of applying external heat give satisfactory results.

Muscle strain, sprain, and dislocation: Fixation by a removable plaster splint and daily application of heat and massage are to be preferred to adhesive strapping which does not permit recourse to physical therapy. An electric "baker" may be applied for 20 minutes daily. Diathermy should be applied at half strength for 10 minutes on the first treatment, to ascertain if the hemorrhage or edema increases.

Acute subacromial bursitis: Infrared rays are given for thirty minutes at least twice daily, with the arm in abduction if possible. Short-wave diathermy is applied for twenty minutes once daily.

Acute myositis or myalgia: Hot fomentations or continuous moist heat are more effective than diathermy. In chronic myositis, and fibrositis, diathermy is an adjunct to massage and manipulation.

Pneumonia: Diathermy is of definite value in relieving chest pain.

J. S. COULTER, M.D., F.A.C.S.
Chicago, Ill.

N. Y. S. J. M., April 1, 1939.

State Medicine is poorhouse medicine. Tell your patients.

Physical Therapy in Furunculosis*

SHORT-WAVE THERAPY has the same indications as roentgen-ray therapy in the treatment of a furuncle or carbuncle. Painful but moderately inflamed furuncles may be checked in 24 hours and the pain rapidly diminished. Moderate intensity should be used, particularly when the lesions are most acute. The duration of a treatment varies between 10 and 30 minutes. The treatment should induce and leave behind a pleasant sensation. We have obtained the same good results using wavelengths of 7 or 16 meters, but the technics of use are appreciably different.

Treatments are repeated every day, and sometimes twice daily, at the beginning of a difficult case. In the case of a furuncle, we expect to give from two to four treatments; in the case of a large, progressing carbuncle, we expect to give a dozen treatments.

Ultraviolet irradiation is of value in (1) cicatrizing carbuncles, after they have been checked by other means; (2) resolving the resisting cores of sclerosing furuncles by a strong, strictly localized dose; and (3) treating regional recurring furuncles (as on neck, thighs, or lumbar region).

Generalized irradiation should be given over the entire body surface for recurring generalized furuncles. The attacks of furunculosis become farther apart. A treatment is given every other day for 25 days.

Generalized ultraviolet irradiation is a tonic; it transforms the general state of fatigued, emaciated patients, rapidly causing a sensation of wellbeing. Eidinow has shown that preliminary irradiation inhibits experimental staphylococcal septicemia, although, when given after the inoculation of staphylococci, it increases the death rate in rabbits.

X-Rays: One treatment alone is sufficient to check the development of a furuncle or carbuncle. The dose is always moderate, and varies between 10 and 200 *r*, but is generally about 100 *r*. It is important to irradiate an extensive area overlapping the inflamed zone.

JEAN MEYER, M.D.
Paris, France.

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A Living for the Doctor

The Business of Medicine and the Art of Living

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Commercialized Medicine and Politics

AT last, after years of silent suffering, the physicians of this country are bringing their woes out into the daylight and discussing them openly—and this is well.

Among the forces which menace the practitioner most seriously are commercialized medicine and politics, both external and internal.

Commercialized medicine means the *wholesale* treatment of the sick and is, necessarily, based, to a large extent, upon the idea that the human body is a mechanical engine to which various things (called diseases) may happen, as a worn bearing, a flat tire, or a leaking radiator may happen to an automobile; and that, when there is a knock in the engine or a squeak in the chassis, all that is necessary is to take the "old bus" to an expert mechanic who, with the necessary tools at hand, will locate the trouble and repair it.

If the human organism were really a simple machine, like the electric Robots which are now causing much discussion, this plan would work beautifully—and there would be no need for long and complicated medical curriculums. The auto mechanic needs only a few months of practical training in a shop or garage, after which he can go out "on his own" and function reasonably satisfactorily.

The handling of men and women is not so simple. In the first place, we cannot put in new "spare parts" to replace those that break or wear out; neither can we lubricate the joints or the brain, in order that they may function without friction. Man is a *self-conscious* being, whose mind, emotions, and body are merely instruments for his manifestation in the material universe and whose physical parts and organs are always mutually reacting with and being acted upon by his desires, emotions, and thoughts; and these facts must be reckoned with in treating the abnormalities of structure and function which constantly result from his ignorance and carelessness.

The irregulars (and, unfortunately, some regular physicians) have taught the people, by paid advertising and by word of mouth, that they are highly complicated machines and can be overhauled and reconditioned by any reasonably clever mechanic. We must thoughtfully and vigorously, individually and collectively, set about reeducating them as to the facts, *using the means so profitably employed by the men we profess to despise*—public and private talks to groups or individuals, radio broadcasting, writing sound and sane articles for the lay periodicals, and *using paid-for space in the newspapers,* not to extol personal prowess, but to disseminate needed information.

We do not need to *fight* the irregular, personally or in groups. All that is necessary is to get the *facts* across to the public, whereupon they will see the fallacy of some of the ideas now being foisted upon them, and the cults will die of inanition, if we give our patients the intelligent and understanding service they need and deserve.

The problem of the irregulars is the least of our difficulties. It is the well-meaning but unenlightened "uplifters" and those of our own number who are boring from within that give us the most justifiable concern—the endowed pay-clinics (and many carelessly conducted free-clinics), Health and Life Extension Institutes, the unwarranted and pernicious entrance of the public health agencies into the practice of *curative* medicine, and the disastrous eagerness of politicians, within and without the ranks of the profession, to *manage* medical practice according to some prejudice or superstition or for their own personal profit.

The philanthropists who are embarrassing us by founding pay clinics, go in for furnishing medical service at a loss, rather than dispensing food, clothing and shelter on the same basis, because, if they tried to hand out these material things in such a manner, the grocers, the butchers, the clothing manufacturers, and the landlords (among which classes the wealthy charity dispensers may,

themselves, be numbered) would bring such pressure to bear that the scheme would be dropped; while the medical profession suffers in somnolent silence, and certain individual doctors cooperate in doing their professional brothers a very ill turn.

The Health Institutes and Life Extension Bureaus, as well as the pay-clinics, all depend upon *physicians* for conducting their enterprises. If those medical men who do the dirty work for these institutions (generally at scullion's pay) could be brought to see that such things simply *will not do*, and could have a little spunk injected into them, the whole system would fall flat.

If the public health agencies—which have, goodness knows, a big enough field of endeavor, which is legitimately their own—are edging into the field of curative medicine, it is because the ignorant public is *asking* for it. How can we expect the "man on the street" to see the fallacy and inexpediency of such a course when many physicians fail to appreciate it?

If we could bring the people of this country face to face with the question, "How would you like it if there *were no doctors* except those of the Clinics, Institutes, and Boards of Health—no one to come to the bedside at night; no one to take a *personal* interest; no one to help, sympathetically, in an emergency?" they might see the light, especially when we convinced them that, if these politically or commercially inspired and lay-managed institutions go on unchecked, such a deplorable condition may actually result.

If outside politicians hamper and interfere with our activities, by ill-considered legislation and otherwise, who is to blame? Who *elects* these people? Who gives them their instructions? How much does *each individual physician* bestir himself to see that he is satisfactorily represented, in the Councils of the Nation, the State, and the Profession? Have *you*, personally, for example, told your senators and representatives just what you think about our meddling in a strictly European war? If we will not take care of ourselves, whom do we expect will take care of us?

The diagnosis of our present complaint is *ignorance* on the part of the public and *inertia* on the part of physicians.

The treatment indicated is *education of the people* (if the "Code of Ethics" interferes, *revise the Code*—it is high time!) and *awakening of the profession* to the need for *united, coordinated, and intelligent action*, in this new world, whose keynote is combination and loyalty in the achievement of a common and worthy purpose.

G. B. L.

The Treatment of Minor Conditions

TREATMENT of minor conditions is generally neglected by teachers and writers. Unfortunately, this attitude tends to breed the idea that little troubles need little treatment, which makes business for the chiropodist, the chiropractor, the prescribing druggist, the masseuse, the half-baked colonic therapist, and the food faddist.

The patient knows little of the major plans in diagnosis and treatment or of your abilities in either line, but he *does* appreciate consideration and relief of discomfort. He will not mind pain so much if it has been explained to him that it would be unsafe to relieve all of it, or that a diagnosis must be made first.

The observant intern learns that the well-liked physician is careful of his patient's comfort and scrupulously attends to his various *"little"* pleas. It is not beneath his dignity to examine or treat a corn or bunion. A backache is as important to him as an intestinal obstruction.

In the treatment of "minor" complaints, the physician must exercise care that he does not fall into the easy trap of treating symptoms; nor should he use loose diagnostic terms, such as "cystitis" (a rare disease), "leukorrhea," "rheumatism," or "prostate trouble."

To the patient, *there are no little things.*

R. L. G.

★ Notes and Abstracts ★

Economics

THE trouble with economics, as a science, is that it makes too little allowance for human nature, or too much. Indeed, if it is conceded that human nature is an important factor in any particular study, then the word "science" must be applied to it with extreme reserve. Science means knowledge, and knowledge, which is truth, cannot be twisted and bent to conform to the prejudices of rich or poor, of privileged or underprivileged, of the "Sixty Families" or the "Submerged Third."

There are, then, *economists*, and *apologists*, and *mere statisticians*. Let us explain: An economist is one who seeks to interpret property relations—the operations of industry and finance and trade—and, it may be, to deduce, from study and observation, what influences those operations may be exercising in all human customs and activities—religion, family life, art, amusements, politics, international relations. Further than that, the economist may attempt to forecast future property relations from his knowledge of past developments and present trends.

While the true economist *explains*, the apologist *defends*. To explain is also to question, and the only one the defender ever questions is the questioner of that which he defends. In other words, the apologist first assumes that the economic system, as he sees it, is a law of nature, not open to criticism by mortal men, and then spends an

arduous and anxious life defending the indefensible, even after it has ceased to exist.

Compilers of statistics, who have been taught the technic of drawing graphic charts that satisfy the childish fondness for pictures that is in all of us, are sometimes *mistaken* for economists. Their work is important enough, and some of them have sufficient originality to discover new meanings and new uses for the mounting array of statistical information that is becoming available, but *they are not economists.*

Economists, like philosophers, are original thinkers, which means that they are pretty rare birds. The trouble with economics is that the truth is hard to find, and, once found, is hard to accept, if it is at variance with established beliefs. —WILSON OLIVER, in *Friday Review.*

The products we advertise are worthy of your attention. Look them over.

The Great American Transfusion

HISTORY will probably record no more ingenious Government innovation than the transfusion apparatus devised to bring back health to Uncle Sam.

Hailed as an inspired advance in ultra-modern economics, the idea was to inject into one arm, as "recovery," the life-blood drawn from the other arm in the form of taxes. No one will ever know whether this experiment would have worked, for idea begets idea.

"While I am ministering to Old Sam's body," said Dr. Government, "I might as well attend to his soul."

So a large part of the "recovery" money is siphoned off to pay for Federal commissions, boards, administrations and authorities—67 in the last six years, with executive, legislative, and even judicial powers—to "reform" every real and fancied flaw in the patient's character.

Government agencies now supervise all the productive acts of man. Their *"Thou shalt not"* echoes from coast to coast, in mines, fields, factories, banks, and offices.

Weakened by taxes, harried with prohibitions, uncertainties, threats, and Government competition, private enterprise continues to struggle for its life, and jobs languish.

This in the nation that was founded on the principle of freedom and grew through the exercise of thrift and clear-headed individual endeavor!

Is it what the people of this country actually want? That's to be doubted.—*Nation's Business.*

The Group Health Association

THE Group Health Association (in Washington, D.C., which started the trouble that resulted in indicting the A. M. A. *et al*, and set the stage for the National Health Conference.—ED.), I have no doubt, is careful in selecting its medical staff; that fact is not disputed by opponents of its scheme.

The caveats filed against it have quite different grounds. The chief of them is that the plan interposes a third party between doctor and patient, and subjects the doctor to lay control.

The "arrangements" to which the American Medical Association objects, and quite properly objects, not only offer hospital accommodations, but also medical service. They employ doctors, organize them into staffs, put them under superiors (some medical, but others lay), and hire them out to subscribers. Whatever the subscribers pay for their service goes, not to the doctors, but to the organization. It pays them whatever they are willing to work for, and keeps the rest.

Obviously, no doctor who works under such conditions can be said to maintain a strictly professional status. He may have a good job; he may like it; and he may give competent and conscientious service to the patients assigned to him; but in the last analysis they are the Association's patients, not his. It may take them away from him at will, and assign him others. It may take them all away from him by dismissing him. They exist as his patients only by the Association's grace, and on conditions that it lays down.

He is no longer a free agent. He works for an association whose bosses have his livelihood, or the greater part of it, in their hands. They are tempted, in order to keep within their incomes from members, to work him as hard as possible; and he is tempted, as a makeweight, to abate his professional ardors, to the damage of his patients.—H. L. MENCKEN, in *America's Future,* Mid-Spring, 1939.

Doctors Needed

QUITE accidentally, a radio "Man-on-the-Street" program in a western state a few weeks ago happened to interview a man who said he was a doctor who desired to become established in a practice. Responses at once came in (72 letters, 11 telephone calls, and one telegram) from 63 towns that wanted physicians, in Nebraska, Kansas, Iowa, South Dakota, Minnesota, Missouri, and Wyoming. The lists of towns is published in the *Nebraska State Medical Journal* for February, 1939.—*New York State J. Med.,* July 15, 1939.

The Handwriting of Doctors

THE handwriting of physicians has been much maligned, and we are glad to have, at last, some statistics on the subject. In Lancashire, last year, the number of prescriptions passing through the Pricing Bureau was more than four million. In these four million unselected instances, the doctor's handwriting was intelligible to the chemist, and only one hundred (one in 40,000) could not be read by the clerks.—*Med. World* (Lond.), May 5, 1939.

The Seminar

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(NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.

Discussions should reach this office not later than the 5th of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, Waukegan, Ill.)

Problem No. 8 (Medical)

Presented by F. W. Schroeder, M.D., Strasburg, Ill.

RECAPITULATION: A man of 20 years, 6 feet 1 inch tall and weighing 160 pounds, who had always been healthy, had a slight chill, followed by a fever of 103° F.; pulse, 92; respiration, 33, and a nocturnal cough for a few days, and *no other symptoms.* The accompanying chart shows the course of the fever.

A "complete examination," including agglutination tests for the typhoid and dysentery groups of organisms and *Brucella,* gave no positive findings.

Requirements: Suggest a tentative diagnosis and prognosis. What further studies would *you have* made? What treatment would *you* have given, pending the results of such studies?

Discussion by L. E. Williams, M.D., Kansas City, Mo.

This seems to be one of the many cases which puzzles the physician as to diagnosis, but delights him because of the favorable outcome. In the final analysis, patients demand *results* and that is what this patient received.

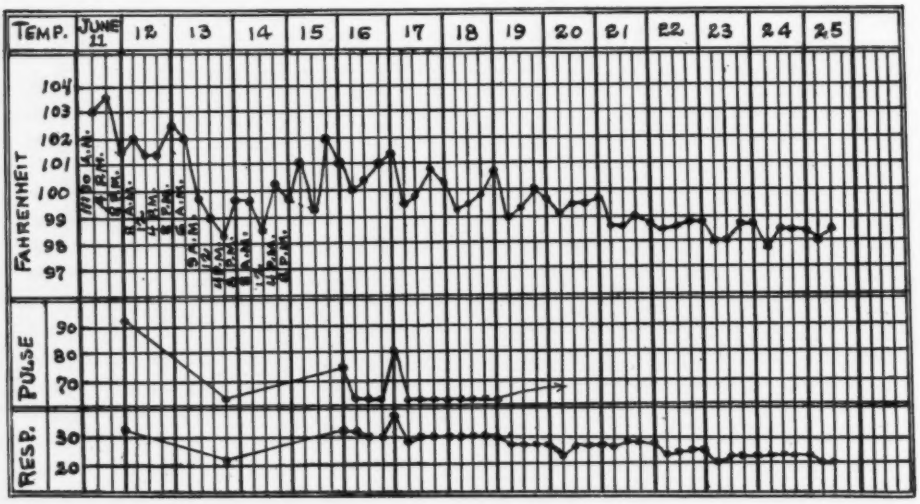
I think the doctor handled the case skillfully and had all the laboratory work done that was likely to aid in the diagnosis. Red, white, and differential blood-cell counts might have shed some light on the nature of the infection, but I doubt if a roentgenogram, in this case where there was not enough pathosis to produce any abnormal physical findings, would have been of any positive value.

The presence of a nocturnal cough leads me to believe that the condition was of a respiratory nature. The secretion, being scant, was readily expectorated during wakefulness, but accumulated and irritated the pharynx during sleep and produced the cough. My tentative diagnosis is *influenza,* of the mild febrile type. The prognosis is favorable and the treatment is symptomatic, as results show.

Discussion by G. M. Russell, M.D., Billings, Mont.

Here was a man with an initial temperature of 103° F., which dropped, by crisis, to normal on the second day, to rise again, gradually, in 2 days, to 102° F., and then promptly begin coming down, by lysis, to normal within ten days. Apparently there was a low-grade infection of some kind, somewhere.

The Doctor states that he could find nothing



wrong with any of the patient's organs on repeated examinations, and there was no pain, so there is but little for one to base a diagnosis upon. The only possible clue he gives us is the nocturnal cough. It is assumed that he made a thorough examination of the lungs, but it would have been advisable to have an x-ray chest film made. It might have shown something; perhaps a small area of broncho-pneumonia, which he could not detect with the stethoscope. Except for the point of crisis, the respirations were rather high for the amount of fever, which is in accord with a probable respiratory involvement.

I should have liked to have a blood culture made. I treated a case of typhoid fever in which the clinical chart was quite similar to this, a number of years ago, and in which a blood culture, on the third day, showed typhoid bacilli.

This I believe is as far as any one can go in making a tentative diagnosis in this case.

So far as treatment is concerned, almost any simple fever mixture, such as the defervescent compound and nuclein, would have served the purpose as well as anything.

I believe that many such cases, where no definite infection can be located, occur frequently in every physician's practice.

Discussion by E. O. Houda, M.D., Tacoma, Wash.

As events, of whatever nature, are judged by what they do or do not do, so diseases, for diagnostic, prognostic, and treatment purposes, must be judged by the effects of their primary causes.

There is little of factual importance here upon which a positive diagnosis could be made. The mere presence of an ephemeral type of fever, which rebounded after dropping, to gradually fade out completely, is presumptive evidence of an infection (which was not determined in this instance) of a previously healthy youngster. Treatment is, of course, directed against unpleasant or undesired symptoms. This lad got well through no special effort of his physician or of two indulgent graduate-nurse sisters, which he no doubt would have done if he had been left entirely alone.

Discussion by R. L. Gorrell, M.D., Clarion, Ia.

The only diagnostic points given are: (1) fever, which disappeared by lysis; (2) relative bradycardia; and (3) nocturnal cough.

A chill, followed by fever, suggests the introduction of infection or the onset of a contagious disease. Quite typically, smallpox and measles show a drop in fever on the second or third day, with a recrudescence on the third or fourth day. A cough is often present in measles, but no mention is made of coryza, Koplik's spots, or an eruption.

In most fevers, the pulse rate is increased 10 beats per minute for each degree rise in temperature. If this had been the case here, the pulse rate would have been 110 to 115, rather than 92 as stated. *Typhoid fever,* notably, is evidenced by a slow pulse.

Influenza could account for the fever and cough, without any physical evidences of disease, but is usually associated with muscle pains. No mention is made of pharyngitis or tonsillitis, either of which could cause this type of fever.

Dr. Schroeder does not specify whether agglutination tests, such as the Widal, or direct blood cultures were used. Quite often, one test will be positive when the other is negative. Early in typhoid fever, the blood culture is frequently positive, and the Widal test is not positive until after ten days.

Syphilis frequently results in fever, but usually it is of a mild nature, and in the secondary stage is accompanied by an eruption, alopecia, mucous patches, or sore throat. The Wassermann test would be positive by this time.

A leukocyte count would be of distinct value. Leukopenia would make one think of influenza or measles.

Unless some physical sign present has not been mentioned, one would have little to make a positive diagnosis upon. Differential diagnosis could be attempted from a list consisting of influenza, pharyngitis, and infection from an extraneous source.

"As a rule, *it is undesirable to attempt to reduce fever,* unless it tends to reach hyperpyrexic levels. The use of synthetic antipyretics (aspirin, antipyrin) is especially to be avoided. They will certainly reduce fever, but seldom to the benefit of the patient. Tepid or cold sponging is often a great comfort to the patient. Cold baths or the cold pack, ice bags to the head, or rubbing with a block of ice, may be prescribed. Sometimes good results may follow hot applications, which encourage sweating." (Ker's "Manual of Fevers." 1939; Oxford University Press.)

It is a strange mixture of views when a profession advocates fever treatments for resistant infections, yet reduces fever when nature brings it about in an attempt to overcome infection.

Discussion by H. William Guinand, D.O., Riverdale, Mich.

First, I should have made a red blood cell count, a leukocyte, and a differential count, to see if there was some secondary anemia (which I believe there would be) and also leukopenia (about 5,000 to 6,000), with lymphocytosis in the differential count.

Second, I should have made a blood agglutination test for *undulant fever* and, while waiting for 48 to 72 hours for a report, would have used 1.0 cc. of Brucellergin, as used and recommended by I. F. Huddleston, of Michigan State College, East Lansing.

My *diagnosis* is *undulant fever* (brucellosis).

My *treatment,* general; rest, a liquid diet, enemas and tepid baths every 3 hours for temperature of over 102.6° F. After 24 hours, the Brucellergin test would be reported, and I should use specific treatment, if it was positive, which I feel reasonably sure it would be.

My *prognosis:* For life, 100 percent; for cure, 100 percent.

Discussion by E. C. Junger, M.D., Soldier, Ia.

This problem seems simple, but it could fool most of us plenty, as most infectious and contagious diseases start with a slight chill, or increased pharyngeal secretion, or sniffles.

I see nothing in the temperature or pulse records out of line with what might be found in an ordinary head cold, but the breathing seems unduly fast (about 38 respirations per minute on June 16-17). I would diagnose a mild attack of *poliomyelitis.*

While waiting, I should give methenamine or potassium sulphocyanate, by mouth or intramuscularly. A little longer rest in bed, with baths and

massage, might do more good than doing chores. Had the attack been more severe, intestinal symptoms and muscular tremors would probably have been present.

Discussion by George B. Lake, M.D., Waukegan, Ill.

(*Abstract of a letter written to Dr. Schroeder on receipt of this problem,* July 13, 1939.)

This sketchy report (although relatively few physicians would have made the agglutination tests, as Dr. Schroeder did) contains nothing pathognomonic of any particular disease, and since no details are given, one is in doubt as to what the Doctor considers a "complete examination."

A complete blood-cell count, including differential and hemoglobin estimation, and a *good* roentgenogram of the chest, would be the first things I should think of in such a case. A *detailed* report of the results of auscultation of the chest, palpation of the accessible lymph glands, and a *complete* urinalysis, would also be helpful. The patient was rather thin for his height, and it would be interesting to know if he had lost or gained weight recently.

As this report was made only five days after the end of this bout of fever, further trouble may be in store for the patient. Perhaps I was "sensitized" by the report in the *Seminar* for June (page 259), but I could not help thinking of the possibility of Hodgkin's disease. Other than that, my *guess* would be some *undiscovered infection*, somewhere.

On the basis of this report, as it stands, Dr. Schroeder was probably justified in giving this patient no treatment except rest in bed and a light diet.

Closing Comments by Dr. Schroeder

(*August* 24, 1939)

It is now nearly two months since this young man got out of bed, and soon after went back to physical work. Apparently he has entirely recovered and is going his way as he had done before.

Wassermann and Kahn tests were both negative Blood: White-cell count, 11,000; red-cells, 3,500,000; hemoglobin, 75 percent. No differential leukocyte count was made.

This young man has a bright mind, and it was keen throughout his illness. His eyes did not tire, though he read constantly. His throat, nose, and ears showed no infection, and there were no enlarged cervical glands.

His chest remained clear, although he had a slight "cold" at the beginning of his trouble, which cleared up quickly by his confinement to bed. A tuberculin skin test was negative.

His heart showed no valvular trouble, no disturbance of rhythm, and no indication of an infectious attack.

A physical examination of the entire gamut of organs within the abdomen disclosed no tenderness, dysfunction, displacement, or any other abnormality. There was slight tenderness over the kidney area, which disappeared in a few days. There was no enlargement or tenderness of the lymphatics of the groins, and no hernia. All reflexes were normal.

The only evidence of a pathologic condition somewhere in the body were: Tenderness (slight), over the kidney area, which probably was due to his unaccustomed lying in bed; fever, with acceleration of the pulse and breathing (ratio normal, and in so much eliminating a chest lesion); and a slightly rigid abdomen, which remained rigid, in this mild degree, until his temperature became normal, when the belly became soft. Also, during the course of the fever, his strength was slowly dissipated, and when he finally got on his feet he felt noticeably weaker than when he went to bed. He also lost twelve pounds in weight.

A few days after getting out of bed he began doing light things about the house, and in a week was back at work, as usual. His appetite became good while still in bed and he began objecting to the liquid diet which his two nurse sisters insisted on feeding him. There was no evidence of peritonitis.

I am inclined to the opinion that there was some type of involvement of the mesenteric glands, of a passing nature. I cannot reconcile it with Hodgkins' disease. I realize, however, that it would be wise to keep this in mind for a possible second attack, which may appear. I will frankly admit that I did not have enough clinical findings to make a respectable *wrong diagnosis.*

Problem No. 10 (Medical)*

Presented by Harvey G. Beck, M.D., Baltimore, Md.

THE patient was a single white woman, aged fifty-one, a teacher, who lived alone in one room, heated by natural gas radiators, where she spent most of her time. Her diet was well balanced and there was no history of the ingestion of any medicine. There was nothing significant in her family or personal history and, except for typhoid fever in 1908 and hysterectomy for uterine fibroids in 1923, the past history was unimportant.

In December, 1935, she first noted mild pains in the distal finger joints. In March, 1936, she noticed epigastric pressure immediately after meals, relieved by belching, and a gnawing pain in the epigastrium, which came on three hours after meals and was relieved by food. There was no nausea nor emesis; no history of jaundice; no constipation; no blood in the stools; no evidence of hemorrhoids.

Great difficulty was encountered in passing a gastric tube for removal of the test meal, and much blood appeared in the gastric contents. Similar results were obtained on two subsequent examinations. A test for occult blood in the stool was positive while the patient was on a meat-free diet. Gastric acidity was normal, and careful, repeated x-ray examinations did not reveal ulcer or other diseases of the stomach.

In June, 1936, she experienced dizziness, anorexia, tightness in the chest, weakness, paresthesia, pain in the legs, cramps in the soles of the feet, emotional instability, restlessness, and nocturia. A physical examination, at this time, revealed only a somewhat distended and tympanitic abdomen, cutaneous hyperesthesia over the lower abdomen, and tender nerve zones over the chest and abdomen. Gastric analyses showed the stomach to contain 15 cc. of fluid, with a normal amount of acid and no blood. Roentgenologic examination was again negative. The urinalysis and blood count were normal and the Wassermann test was negative.

Requirements:, (1) Suggest a tentative diagnosis. (2) What, if any, further examinations would *you* have made? (3) Outline the treatment.

*Adapted from *Rev. Gastroenterol.*

Clinical Notes and Abstracts

The General Practitioner and the Minor Psychoses *

FOR the physician in the hurly-burly of general practise, the problems in the treatment of abnormal psychologic states, whether he is interested in them or not, confront him every day. It has been proved that about 35 percent of all patients presenting themselves for medical advice have no organic disease which we can detect today, and that three-fourths of all patients suffering from organic disease have collateral emotional symptom-complexes, which we can interpret only as being minor psychoses.

Personality, which simply means the individual's behavior while in action, has been classified roughly, and disturbances in personality have been called psychoses. A major psychosis is one in which the personality disturbance is so complete that the individual cannot get along in the outside world; *a minor psychosis is one in which the disturbance is partial and still allows the patient to get along in the outside world.*

Whereas we, considering ourselves as normal individuals, in our conflicts both social and economic, meet our failures, frustrations, and disappointments in such a manner that we can carry on without seriously disturbing our emotional life —in other words, we can "take it" and still keep smiling—the minor psychotic patient cannot do this and erects, as an instinctive defence against his environment, a mechanism in the nature of a throwback to the carefree days of childhood, which satisfies his conscience, but also gives rise to emotional disturbances, either by substituting a physical symptom for his conflict (hysteria) or various escape phenomena (fears, anxieties).

These manifestations cause great unhappiness and are of great social importance. Unlike, the major psychoses, they do not destroy, because *the individual lives a life of compromise* and is saved; he recognizes that he is ill and, generally speaking, wants to get well.

There are three clinical types of minor psychoses: Hysteria, neurasthenia, and psychasthenia, the latter including the anxiety neuroses, compulsive states, and hypochondria.

Hysteria may be looked upon as a type of reaction, adopted *unconsciously*, but yet for a definite purpose, in order that, through the disguise of a symptom, some problem may be solved or some desire, the conscious gratification of which must not be permitted, may be satisfied. This differs from malingering, where the counterfeit of some symptom or mental disturbance is a *conscious* act. Hysteria tends to develop in inferior, immature individuals, particularly in the sexual and emotional fields, and we find these sufferers mainly among young people, and more especially in females.

Symptoms of hysteria: (1) *Sensory*, such as headache, blindness, anesthesia, etc.; (2) *motor*, such as paralyses, tremors, choreiform and convulsive seizures, aphonia, globus hystericus, and possibly writer's cramp; and (3) *visceral*, such as vomiting, hiccup, retention of urine, and even some forms of dysmenorrhea. Amnesia, "trance," deliriums and somnambulism are common mental disturbances, which frequently follow some marked emotional experience. But whatever the symptom, it does not fit exactly with our knowledge of organic disease manifestations and there is a simulation, which *follows the patient's conception of how his body is arranged*, but not an anatomic or physiologic distribution.

One important fact is the *patient's indifference toward his physical disability*—a complacence more suggestive of relief than of distress.

Neurasthenia is a sense of mental and physical fatigability, with various mild painful and abnormal sensations, with an exaggerated degree of attention to the body functions and an unconquerable desire to quail before and fret over these symptoms. *These patients wake up exhausted in the morning, feel better as the day progresses, and frequently regain their full vigor before bedtime.** They cannot concentrate, complain of poor memory (which in reality is caused by poor attention), and are unable to make decisions. The blood pressure is generally low. *These symptoms may also be the earliest signs of serious circulatory disease, tumor of the brain, or cancer of the gastro-intestinal tract.*

Psychasthenia: Mental suffering in all its forms, without any physical signs, constitutes psychasthenia. The individual attempts to repress his failures by obsessive thoughts, compulsive acts, unreasonable fears, and an anxious mental state. All of us have had obsessive thoughts, such as the persistence of a strain of music or counting of telephone poles, but they are fleeting and do not dominate our thoughts.

Treatment: The physician must be sympathetic, tactful, and thoughtful. A reserved optimism must be maintained. A *complete history* of the patient's illness, *in his own words*, is essential, and alone may be enough of a mental purge to give relief. Certain patients will surprise themselves by eliciting from their own mind ideas and emotions not consciously, theretofore, considered as factors in their case, and which will have a marked beneficial effect upon them.

While the history is being given, the physician should notice (1) the patient's general behavior (greeting, posture, attitude, compulsive move-

*Hahnemann Monthly, July, 1939.

*A Benzedrine (amphetamine) Sulfate tablet, taken on arising, frequently prevents the appearance of all these symptoms.—ED.

ments); (2) the stream of talk, whether retarded or whether the words fall over one another; (3) the content of the ideas, as to anxiety, fear, depression, obsession, misinterpretations of fact, or delusions; (4) his intelligence and memory (does he have an average grasp of realities within his environment and is his memory retentive?); (5) his insight into the symptoms of his illness—if insight is present to a good degree, the chances of helping him are much increased; if insight is lost, not only are we going to fail in curing the patient, but we are probably not dealing with a minor psychosis at all.

Next, a personal, social, and family history is included, through which environmental maladjustments and economic stresses may be made clear, and, in a rough way, one obtains some idea of the patient's life since infancy.

A complete and thorough physical examination is the next step. It not only affords a chance of discovering early organic disease, but disarms the patient of any suspicion of insincerity. If nothing serious is found, take pains to point out that, while organically the patient is free from disease, yet emotionally he is ill, and try to create an atmosphere of optimism about his freedom from disease.

One should attempt to increase the insight of these individuals into the cause of their symptoms; explain to them how emotional disturbances are caused; avoid assuming a moralistic attitude toward the patient's actions; impress upon him that life cannot and need not be monotonously serene and that it is the manly thing to accept cheerfully the failures and disappointments, to replace martyrdom with forbearance and complacency.

On the physical side, complaints and symptoms should be corrected, as much as possible, by a rigid regime, *at home*, of diet, hygiene, rest, recreation, and sleep. Coffee, tea, alcohol, cocoa, and excessive smoking should be markedly curtailed. Insomnia may be corrected by outdoor walks, riding, driving, and physical therapy. A hobby should be encouraged; travel or change of occupation may be necessary; *sedatives should not be used, as they tend to create a habit, which is worse than the affliction.*

HAROLD A. TAGGART, M.D.

Drexel Hill, Pa.

The Treatment of Ludwig's Angina

INFECTIONS of the cellular tissues of the floor of the mouth, down to the submaxillary salivary gland, incorrectly called Ludwig's angina, present a grave surgical condition in which energetic treatment is essential. These patients are not only suffering from a virulent, spreading cellulitis, but also from the mechanical effects of an edematous submaxillary salivary gland pressing against the lateral pharyngeal wall and indirectly against the larynx.

The diagnosis presents no difficulties. The skin over the submaxillary region, while edematous and brawny, is rarely reddened. The swelling is stony hard and fluctuation is seldom obtained, because the gland, with its closely adherent leaflet of deep cervical fascia, presents a dense, unyielding barrier to the deep suppuration which is present. The mouth is partially opened with great difficulty. Forced movement of the protruded tongue, which is elevated and partially fixed, is painful. Examination of the floor of the mouth reveals that it is brawny, indurated, edematous, and tender.

If the clinical condition of the patient is not definitely improved in 24 hours, *the submaxillary salivary gland should be removed under local anesthesia.* This gland blocks the free drainage of the cellular tissues. Following its removal, with the division of the mylohyoid muscle at right angles to its fibers, the cavity is loosely packed. There is an immediate, definite, progressive improvement. This method has been used for 17 years, and has been successful even when used bilaterally.—RALPH COLP, M.D., in *Surg. Gynec. & Obst.*, June, 1939.

Look for FACTS AND COMMENTS among the advertising pages at the back.

Scratch Tests and Allergy

THE other day a letter came to me, written by a physician in the Central States, who expressed himself about the scratch tests employed in a diagnosis and (indirectly) treatment of allergic conditions. He said: "Treating with the thousand and one specific proteins and other agents is the height of absurdity." The doctor admitted, though, that this cumbersome method was better than no treatment at all.

In my reply I ventured to express the opinion that the same cumbersome method was not better than no treatment, but was worse. Those various scratch tests and patch tests that are done with elaborate ceremonial and at great expense—what do they lead to? Simply to the exclusion of certain food articles. And if some poor devil reacts positively to most of the articles of food that are available, he or she is pretty badly off, because there will be nothing to eat, or at least hardly anything, unless the patient chooses to chew the cud of disappointment, which is not very nourishing.

Testing for allergy and then eliminating certain foodstuffs does nothing to correct the sensitiveness, to overcome the disability, to break down certain foodstuffs and to utilize them for the benefit of the organism. After all, the patient wants to be *cured.* He does not care so much about the why of his disability, but he wants to know what you and I are going to *do about it.*

Here is where we owe a debt to Anton Oelgoetz, and where Panocrin-A (Harrower), sometimes, with suitable auxiliary treatment, accomplishes much good. In a great many cases you will find it possible to overcome existing food allergies; you will even succeed in training your patients' organisms so that they will learn to take care of foods that now cause trouble. That is what I call curative treatment—to overcome an existing disability and restore normal conditions as far as it is possible.

An interesting observation of quite recent date may be recorded. A young man, who must be about thirty years of age, has suffered from hay fever for years. Several years ago I gave him Edwenil (Spicer) without effect. Several weeks ago I suggested Panocrin-A because he had noticed, himself, that food or digestive processes had something to do with the severity of his attacks.

Last week he told me that his hay fever was less severe.

Another patient who had been allergic to eggs was enabled to eat and digest this article of food after several courses of Panocrin-A, which confirms what I have just said.

H. J. ACHARD, M.D.

Glendale, Calif.

Hypoglycemia, a Common Disease

HYPOGLYCEMIA is much more common than one would be inclined to suspect. When a patient complains of hunger, weakness, nervousness, "spells," of various kinds, trembling, or recurring attacks of mental lapses, leading eventually to convulsions, unconsciousness and coma, suspect hyperinsulinism, Such symptoms are especially suggestive if they occur at night, before breakfast or other meals, or when the stomach has been empty for a long time. If they are relieved by sugar, coffee, or orange juice, they are of still further significance. There is frequently a craving for sweets.

Such patients may present more or less severe gastro-intestinal disturbances with cramps (like the hunger-cramps that follow the administration of insulin). The fasting blood sugar is usually 70 mg. percent, or below. If the blood sugar is estimated after exercise and without food, a lowered level may be found.—W. WOLF, M.D., in "Endocrinology in Modern Practice" (W. B. Saunders & Co., Publishers).

Obesity and Hypertension

As age increases and its accompanying changes are wrought in the body, it is well known that an increase in weight will usually be related to an increase in vascular tension. After a reduction in weight of 5 percent or more, the blood pressures of a group of 3,516 applicants for life insurance were reduced, despite the fact that the applicants were five years older. Increases in weight showed greater increases in blood pressure than might be attributed to advancing age. Loss of weight, in people of normal weight, produced greater reductions in tension than did similar losses in the overweight. Gain in weight, among the normal-weight persons, showed less increase in blood pressure than similar gains among the overweight.—H. A. LEY, M.D., in *Proc. Life Ext. Exam.*, Mar.-Apr., 1939.

Routine Pelvic Examinations in Young Girls

CAREFUL routine examination of the pelvis of the growing girl appears to me even more important than the routine care of the teeth. Present-day dentistry can adequately replace a whole mouthful of teeth, but the combined efforts of the parents, family doctor, and psychiatrist cannot undo the harm caused by the studied inhibitions concerning the young female pelvis. In many cases, a young couple returns from a honeymoon on the verge of nervous breakdown because of an intact, rigid hymen. Many of the ills and difficulties of later life have their beginning in the defloration of an intact hymen.

The hymenal ring is supposed, by many physicians and most lay people, to offer an almost impenetrable barrier to examination. Practically, however, the hymenal orifice of a girl, in the vast majority of instances, is sufficiently large to permit, without undue pain, the necessary digital or instrumental examination, if the confidence of the patient is first secured and the examination is carried out slowly and gently. When the orifice is not large enough, I suggest dilation or incision, with the patient under ethylene anesthesia, as one of the procedures most likely to promote health and happiness in the future wife.—EDWARD ALLEN, M.D., in *Am. J. Dis. Child.*, July, 1939.

(Pelvic examination often discloses evidences of previous intercourse. A girl of 13, seen recently, had an introitus that comfortably admitted a medium sized speculum. She was seven months pregnant.—R. L. G.)

Treatment of the Maladjusted Child*

PARENTS or teachers present children because of emotional instability, assaultiveness, delinquency, or non-adaptability to usual environmental circumstances.

In infancy, choking spells, colic, vomiting, and restlessness; and in childhood, enuresis, nail biting, masturbation, tantrums, anorexia, spasms, and insomnia, are to be looked for in the history, as functional disturbances have existed in some form throughout the entire life of the child.

In this group, the blood calcium is usually low, but other laboratory tests are non-informative. The babies and children are apprehensive, alert, unhappy, and are unduly affected by environmental changes. They become violently agitated, shout, scream, strike, or throw things, out of all proportion to the cause. They become tyrants and do not take their necessary naps and rest.

The child's energy may appear inexhaustible, and the fond parents may arrange classes in dancing or music, when the child actually needs rest and quiet.

Management: The infant should not be disturbed during rest hours by handling or visitors. Caution the parents against forcing the baby into precocity by strenuous efforts to teach him to talk, walk, and show off. Regular, abundant sleep must be stressed from the beginning.

During school years, the child should have a rest at noon. The parents should never yield to whims or pampering, nor exhibit anxiety over his condition, as the child's attention is thus focussed upon himself. Often the child should be removed temporarily from the over-awed parents, or the nervous influence of the home, to a nursery school or camp, or, if the child is older, to a boarding school.

Metabolic: Calcium deficiency can be demonstrated by exaggerated reflexes, by Erb's, Chvostek's and Trousseau's signs, and by a lowered blood calcium content. Trousseau's sign is elicited by applying a tourniquet to the upper arm for one minute, which is followed by an involuntary clinching of the hand. When the facial nerve is tapped over the zygoma, a resultant twitching (positive Chvostek test) appears.

**South. Med. J.*, July, 1939.

Calcium gluconate, in an assimilable form, should be provided orally, in doses of three grams or more each day. Vitamin D should also be given.

Phenobarbital should be prescribed, but neither the mother nor the child should understand that a sedative is being given. This drug should be continued until exhaustion is overcome and sleeping habits are good. The use of calcium and vitamin "D" should not be discontinued during childhood. The home use of ultraviolet irradiation further fortifies calcium utilization.

HAROLD T. NESBIT, M.D.

Dallas, Texas.

Iron Requirements of the Pregnant Woman

THE iron and copper requirements of the pregnant and lactating woman are definitely higher than they are at other times. It is generally observed that, in pregnancy, an anemia occurs which, in women who have had no apparent defects in diet or gastric function, tends to be promptly alleviated within a few days after parturition. As stated by Strauss, there is a steady decline in both hemoglobin and erythrocytes, from early in the pregnancy until the end of the sixth month (apparently due to hydremia), after which there may be no further change, or a slight increase may occur. The anemia in older pregnant women is more marked than in younger women. *Sixty per-cent of pregnant women are anemic*, when judged by the standards of healthy, non-pregnant women.

Since large amounts of iron and copper are stored by the developing fetus, the diet must supply generous amounts of these nutrients, if marked hypochromic anemia is to be avoided. The administration of ferrous sulphate tablets can be of considerable value in improving the blood of pregnant women. The iron and copper requirements of lactating mothers are larger than in non-lactating mothers, because milk contains a little iron and copper.—E. V. MCCOLLUM, PH.D., *et al*, in "The Newer Knowledge of Nutrition" (The Macmillan Company, Publishers, New York City).

State Medicine is poorhouse medicine. Tell your patients.

Sulfanilamide and Flying

THE sulfanilamide group of drugs, when given in full doses or in conditions of idiosyncrasy, is liable to interfere with oxygen exchange by the production of sulfhemoglobin in the circulating blood.

I have recently seen a pilot who was noticed to be suffering from severe anoxemia as a result of flying at the moderate altitude of 13,000 feet. It was found that he had been taking full doses of sulfanilamide for septic tonsillitis just previous to flying. Similar cases have been noted in America and in our own Air Force. A full dose of one of these drugs, taken shortly before flying, is said to lower the aviator's "ceiling" by about 5,000 feet. *Persons intending to fly as passengers, or more particularly, as members of an aircraft crew, should be warned of the danger of taking these drugs within a few days of flying.*—F. P. MACKIE, M.D., Medical Advisor, Imperial Airways, Ltd., in *Brit. M. J.*, July 15, 1939.

Vitamin B_1 for Edematous Patients

THE problem of nutritional deficiency and its relation to edema must be considered in dealing with patients who must receive fluids intravenously for prolonged periods of time. The legs and back become edematous and signs of nutritional deficiency appear, such as the red, shiny, atrophic tongue, similar to that seen with pellagra or sprue. With the intravenous solution, we give vitamin B_1. The tongue then becomes less abnormal in appearance and the edema disappears. As long as the vitamin is given, the edema does not recur.

I believe that in any patient who has been unable to eat properly for some time, especially if the stress of operation is superimposed, the *deprivation of vitamin B_1 is one of the most critical factors* and its replenishment may turn the tide. If actual depletion has developed, large doses (from 20,000 to 50,000 units) should be given.

Vitamin B_1 is not stored in the body and, although the body may carry along surprisingly well without the occurrence of edema or neuritis, yet, when either of these conditions makes its appearance, enormous doses are needed to re-establish the normal concentration of the vitamin in the tissues.—E. G. WAKEFIELD, M.D., in *Pennsylvania M. J.*, Aug., 1939.

Strangulation of the Appendix*

THE word "appendicitis" should be dropped from the scientific vocabulary. Experimental and clinical evidence clearly shows that all phases of appendiceal disease are only steps along the same road, rather than separate diseases, and that *mechanical obstruction is the basic feature*. Appendicitis implies an inflammation which may be treated medically. Strangulation implies a progressive, grave condition, which should be treated surgically at once. About 60,000 persons died last year in England because surgery was not carried out at once during the *first* attack.

Fever need not be present, as it is not a symptom of early appendiceal obstruction, but rather of early peritonitis. In the early stages of obstruction, the only symptoms are central abdominal pain or discomfort, with the possible addition of nausea and vomiting. *No tenderness is present during this stage.*

During the second stage, peritonitis gradually begins in the appendiceal region and tenderness appears. If "rebound" tenderness is found, peritonitis may be confidently diagnosed. During this stage, the peritoneal inflammation is localized and usually subsides following appendectomy.

During the third, or perforative stage, spreading peritonitis is present. Surgery is not indicated, but rather the intravenous administration of liquids, ample amounts of morphine (for comfort), and the prescription of regular breathing exercises and simple exercises for the limbs, which promote pulmonary ventilation and assist venous circulation, thus reducing the dangers of respiratory complica-

*Med. World (Lond.), June 23, 1939.

tions and embolism. An electric pad or radiant heat cradle may be used over the abdomen. Much comfort is derived from the heat. Sulfanilamide preparations may be employed.

With the formation of the abscess, which is usually palpable, anxiety for the recovery of the patient is almost over, unless injudicious surgical intervention should turn the scales once again in favor of the invading bacteria.

While the abscess is forming, do not hamper the patient's immunity by lowering his temperature with antipyretics. Do not incise unless the pulse and temperature steadily mount and the general condition becomes poorer. Many abscesses are absorbed spontaneously.

The golden rule of treatment for appendiceal strangulation: *Operation before perforation.*

G. F. Grant Batchelor, F.R.C.S.
West London, Eng.

The Modern Treatment of Cervicitis*

The common manifestation of cervicitis is a leukorrheal discharge. The chief symptoms are: (1) Pelvic pain; (2) dyspareunia; (3) headache; (4) menorrhagia; and (5) a heavy, bearing-down sensation in the pelvis. Bladder disorders are often associated. The discharge may give rise to vulvovaginitis, with its accompanying symptoms. Infection of the sacro-iliac joints accounts for pain on palpation in that region.

Treatment: Amputation is the treatment of choice in the presence of a hyperplastic, cystic process with multiple lacerations, in a woman past the child-bearing age. Likewise, an elongated, hypertrophied cervix with prolapse, in the aged, should be amputated.

Electrocoagulation, cauterization, or conization is the method of choice, with the above exceptions. Cauterization is preferable if the disease is confined to the endocervix or the hypertrophy is of moderate degree and cysts are few in number. An extensively hypertrophied cervix, with multiple cysts, is better treated by conization and puncture of the remaining cysts, in the hospital and, if need be, under gas anesthesia. After conization, the endocervical space and the vagina may be packed with sterile vaseline strips for twenty-four hours. For lesions of the endocervix and adjacent tissues, linear burns are made with a cautery point. A small laceration, with chronic cervicitis, should be treated by cauterization. Biopsy should be carried out if any tissue looks suspicious.

Postoperative care: The patient should be informed that (1) there will be an increase in discharge; (2) the next menstrual flow will be heavy; (3) there should be no coitus for a month; and (4) douches should be taken after two or three days, unless the cervix is patent and uterus retroverted.

The patient is examined at the end of ten days, but do not loosen the inflammatory exudate at the first visit, for fear of hemorrhage. A germicide is gently applied to the cervix at subsequent visits. Beginning one month postoperatively, dilation of the cervix will prevent and cure uterine stenosis.

Infections of any severity will not develop if the surgeon avoids operation in the presence of an acute infection, corrects a retrodisplacement, and does not invade the uterine cavity. The patient must return to have the cervix dilated, or the menstrual blood may be retained behind a cervical stenosis.

W. T. Black, M.D., F.A.C.S.,
Memphis, Tenn.

*South. M. J., July, 1939.

What Is a Diagnosis?

Between the method and outlook of curative medicine, on the one hand, and of progressive research medicine on the other, there are definite, inevitable and profound divergencies. Consider diagnosis. A diagnostician goes into his wards with one chief goal in view—to place a label correctly; to say that here is a species or subspecies that someone has described, its name being this or that. It is legitimate to define diagnosis, from our present standpoint, as an attempt to recognize the known. That is an endpoint.

When the clinical researcher goes to his wards, his purpose is not to recognize the known, but to face the unknown. Diagnosis, to him, is but a starting-point, and when made it must be absolute.—Sir Thomas Lewis, M.D., in *Brit. M. J.*, Mar. 15, 1939.

Extrarenal Uremia

We encounter extrarenal uremia in association with a variety of conditions, such as motor disturbances in the upper part of the gastro-intestinal tract, sequelae of severe diarrhea, heat exhaustion, and extensive superficial burns. The syndrome consists of decreased urination, vomiting, and falling blood pressure, together with laboratory findings of a high urea concentration in the blood, high carbon dioxide combining power, and a low chloride content of the blood. A urologist is frequently consulted because of the signs of decreasing urination and rising concentration of urea in the blood. Dehydration, be it due to vomiting or diarrhea, associated with a dry, furred tongue and with an elevated blood urea, is usually corrected by the parenteral administration of from 5 to 8 liters of fluid in 24 hours, during which time the patient is carefully observed and the volume of urine excreted is measured carefully.—P. W. Brown, M.D., in *Pennsylvania M. J.*, Aug., 1939.

Silver Picrate in Otitis Media

In acute otitis media, the ear canal is thoroughly cleansed with boric acid swabs, or by irrigation, using warm boric acid solution. The canal is then died with cotton swabs and a ½-percent solution of silver picrate instilled in sufficient amounts to fill the canal, where it is allowed to remain for about ten minutes. A gauze bandage is then placed over the ear and the patient permitted to move about as much as he pleases. This treatment is repeated once or twice daily. The same method of treatment is used in chronic otitis media. If fungous infection is present in the canal (otomycosis), the same procedure is employed, except that the canal should be thoroughly dried after the instillation of the silver picrate, since moisture conduces to fungous growth.—V. R. Vanstane, M.D., in *Illinois M. J.*, May, 1939.

Diagnostic Pointers

The Wheezy Cough

● The infant with recurrent coryza, frequent head colds, and wheezy bronchitis, is usually allergic to some food. As the child grows older, the condition may clear up, but the usual story is that it recurs, especially in the winter months. If it becomes worse in the spring or summer, a pollen allergy should be considered. If it becomes worse in winter, there may be some association with closed windows and the dust stirred up by artificial heating plants.—H. L. HULL, M.D., in *Dis. Chest*, April, 1939.

Dyspnea

● The dyspnea which develops in lesions of the pulmonary alveoli is of a distinct type and it is most important that it be recognized as such. The dyspnea of acidosis and gross respiratory obstruction is slow, deep, and forcible; while that of alveolar lesions is rapid, shallow, and feeble—a most uneconomical type. It is apparently due to an increased sensitiveness of respiratory reflex, brought about by an alveolar-capillary lesion with pulmonary engorgement.—J. C. MEAKINS, M.D., in "The Practice of Medicine" (C. V. Mosby Co.)

Doubtful Breast Tumors

● Small breast tumors should be removed and studied carefully by a competent pathologist; but it is trying to locate a small lump in a large, fat breast. If the tumor is fixed by a small needle, thrust into it through the skin before the incision is made, one will not lose one's way and spend a long time searching for a little mass which can be strangely elusive in the surrounding fat.—CECIL ROWNTREE, M.D., in *Brit. M. J.*, Nov. 12, 1938.

Retention of Urine in Children

● Retention of urine in male infants is generally due to a pin-hole urinary meatus, particularly when this becomes ulcerated. The act of micturition is painful, so the bladder is not uncommonly found to be distended. The treatment is meatotomy, with suture of the sides of the orifice to the remains of the prepuce (assuming that the child has been circumcised). If, after removal of the sutures, this is followed by dilatation of the meatus for two weeks, a cure will always be obtained. Other causes are congenital urethral strictures and congenital valves in the posterior urethra. In these conditions, there is usually chronic retention of urine and uremia: the bladder is greatly distended and kidney function often damaged. Treatment includes dilatation of the stricture or destruction of the valves.—R. O. WARD, M.D., *Brit. M. J.*, March 15, 1939.

Allergic Coughs

● The physician should suspect an allergic condition if the use of cough mixtures containing ephedrine gives definite relief.—H. L. HULL, M.D., in *Dis. Chest*, April, 1939.

Mistakes in Chest Diagnosis

● Rheumatism is the most common incorrect diagnosis applied to cases of aortic aneurysm. Tuberculosis and asthma are the next most common errors. Chronic bronchitis, cardiac decompensation, "chronic laryngitis," lung abscess, pericarditis and angina pectoris were less common mistakes. *The modern diagnosis of any chest condition but the most simple should include a roentgenogram.*—J. J. WARING, M.D., in *Urol. & Cutan. Rev.*, Jan., 1939.

Influenza or a "Cold"

● In true influenza the onset is sudden; constitutional symptoms predominate; the cough is short and dry; and the voice is husky. In febrile catarrhs (a "cold" and cough, with fever) the onset is insidious; local nose and throat symptoms predominate; the cough is paroxysmal and productive; and the voice is hoarse.—*Science News Letter*, Jan. 28, 1939.

Decline in Sexual Function

● A decrease of sexual function is the first and most constant symptom of pituitary tumors. This is associated with an atrophy of the gonads. In women it begins with amenorrhea and sterility. Amenorrhea of pituitary origin is usually of gradual onset. In men, the first symptom noted is a loss of energy, followed by a decrease and eventual disappearance of the libido. Adiposity is a fairly common finding in the hypopituitary syndrome.—MAX CUTLER, M.D., and F. BUSCHKE, M.D., in "Cancer, Its Diagnosis and Treatment" (Saunders).

Spontaneous Mediastinal Emphysema

● A typical case of spontaneous mediastinal emphysema gives this history: (1) A sudden onset of severe pain in the chest, usually located retrosternally, which may occur while the patient is resting or working; (2) there is no shock, hypotension, nor alteration of the pulse, temperature, or respiration; and (3) a distinct sound is heard over the heart with each contraction This sound is of a crunchy, bubbling, crackling character. Occasionally, air may appear in the subcutaneous tissues of the neck.—LOUIS HAMMAN, M.D., in *Bull. Johns Hopkins Hosp.*, Jan., 1939.

THE DOCTOR'S STUDY

New Books

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE AND SURGERY, Waukegan, Ill., is accompanied by a check for the published price of the book.

A good book is the best of friends, the same today and forever.—MARTIN F. TUPPER.

General Medicine

Reimann

TREATMENT IN GENERAL MEDICINE. *Edited by* HOBART A. REIMANN, M.D., *Magee Professor of Practice of Medicine and Clinical Medicine, Jefferson Medical College, Philadelphia; with 34 Collaborators. In Three Volumes and Desk Index. Fully Illustrated. Philadelphia: F. A. Davis Company.* 1939. *Price,* $30.00.

THIS is one of the most beautiful examples of fine bookmaking that has appeared in the medical field. The paper is of excellent quality and, while thin enough to permit the inclusion of 900 pages in each wieldable volume, is not sleazy and is fully opaque. The type is large and clear, and double leading makes it unusually readable. The bindings, of stout brown buckram, are sturdy and handsome.

Modern increments of medical knowledge have made it impossible for one man to attempt the ambitious undertaking of covering the entire field of medical treatment, so Dr. Reimann has enlisted the help of 34 distinguished specialists, who have dealt with their particular fields of work.

In the attempt to cover the immense scope of modern therapeutics in 2,800 pages of text, it is probably inevitable that there should be a certain lack of detail in many of the procedures described, and this is frequently the case in these volumes. Moreover, in comparison with most modern medical books, there is a rather noticeable scarcity of illustrations. Most of the chapters are followed by satisfactory bibliographies. The index is in a small, separate desk volume.

The chapters on geriatrics (indexed only as "Aged, Management and Treatment of,") and on physical, helio-, and mechano-therapy, are especially full and good. Recent advances, such as the use of sulfanilamide and sulfapyridine, staphylococcus and tetanus toxoids, and the injection treatment of varicose veins, are adequately covered.

On the other hand, the treatment of the general field of endocrinology is rather sketchy, especially in regard to the newer developments in male sex hormone therapy; there is a notable absence of detail in connection with the injection treatment of sprains, fibrositis, and the like; the use of the gastroscope in diagnosing gastritis is barely mentioned; and the section on the management of peptic ulcers seems inadequate, by modern standards. Narcolepsy is not listed in the index.

This irregularity in the coverage of various fields is, perhaps, inescapable, where a considerable number of men collaborate in the writing. In general, however, the tone of this work seems a bit overconservative; but it will, doubtless, prove of great value in suggesting the courses to be pursued in following up more detailed studies.

Heart Patients

Smith

HEART PATIENTS; Their Study and Care. *By* S. CALVIN SMITH, M.D., Sc.D., *Formerly Special Heart Examiner for the Surgeon General's Office; Author of "Heart Affections: Their Recognition and Treatment"; "Heart Records: Their Interpretation and Preparation"; "How Is Your Heart?"; and "That Heart of Yours."* 166 *Pages; Cloth Bound. Philadelphia: Lea and Febiger.* 1939. *Price,* $2.00.

THIS little book is of definite value to the practitioner who wishes to rapidly review the newer knowledge of heart diseases. It may be read with interest by the young physician who does not know how to handle patients with heart disease.

Smith corrects the wrong impressions that have been left by such catchall diagnostic terms as "acute dilatation of the heart." His suggestions as to what to tell the patient and what orders to give to the nurse, family, and friends are very much to the point.

Cardiologists probably will not agree that "athlete's heart" is the extremely serious lesion that he considers it. Pathologists will not agree with his statement, "In elderly persons, as the heart grows older, it enlarges to overcome the peripheral resistance offered by capillary shrinking in the bodily muscles . . . It seems to be a purely physiologic process for the left ventricle to increase in size as the activities of middle life make additional demands." No one will agree that the electrocardiogram is the court of first appeal and the court of last appeal, and that it absolutely establishes a cardiac diagnosis.

The term myocardosis, first suggested by Bierring to designate the group of hearts which lack the resiliency of youth and which give rise to slight symptoms of circulatory inefficiency, is used by Smith to include those heart sufferers whose circulatory impairment is due largely to conditions outside the heart.

His advice on the restriction of sexual intercourse, especially for men who have married younger women, is very good. It is not unusual to read of a prominent man dropping dead soon after marrying his secretary or mistress.

"The Heart as a Barometer of Emotions" is a chapter that should be read by every physician who ceases investigating a heart patient after assuring himself that no organic disease is present.

Twenty years ago, Richard Cabot discarded percussion of the cardiac outlines as an inaccurate procedure. Those of us who frequently check up on our physical examinations by a large film taken at six-foot distance, have long since learned that we are wrong in one-third, or more, of our percussion estimates. Smith believes that accurate

percussion of the left border is possible, and dismisses roentgen-ray examination as a rare necessity.

No mention is made of surgical therapy for hypertension. His belief, that hypertension cannot be reduced or benefited by drugs, is to be commended, as it focuses the physician's attention on the patient, his work and rest, rather than on the will-of-the-wisp, cure-all medicine.

The New International Clinics

Piersol

THE NEW INTERNATIONAL CLINICS. *Edited by* GEORGE MORRIS PIERSOL, M.D., *Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia. Volume Two; New Series Two; June, 1939. Philadelphia, Montreal, London: J. B. Lippincott Company. Price,* $3.00.

THIS, the latest volume in the series of new clinics, is tremendously interesting. The subjects covered are of practical interest to general practitioners and diagnosticians.

Hertzler's inimitable style is at its best in his "Treating Stomach Complaints According to the Golden Rule." He feels that all peptic ulcer pain is due to pyloric spasm, and may be relieved with bromides or luminal and antacid powders. He states that he has not cured a case of gastric carcinoma in the past 20 years, either because he is becoming a poorer surgeon or a better pathologist. The latter idea is something to keep in mind when next we read of a long series of successful operations for cancer, rather than placidly accepting a pathologist's diagnosis.

The neurologic and psychiatric aspects of vitamins are covered in two articles by Paul Clough and Esther Loring Richards. Daniels presents a colored plate and discussion of adenomas in the rectum and rectosigmoid. His advice on simple, local anesthesia for rectal examinations and operations is good.

Sutherland's views on the roentgenologic diagnosis of bone lesions are well worth the reading. Wintrobe brings out many salient points in "The Choice of Methods for the Correction of Anemia," especially emphasizing the fact that too-concentrated liver extracts have been rendered less effective by their concentration. Brewer's yeast, in certain cases, has given as good results as liver extract.

Vaccinotherapy in chronic and focal infections; treatment of functional uterine bleeding; pellagra; treatment of diabetes during the course of infections and surgical complications; and a splendid review of endoscopy, by Clerf, make up a well balanced volume.

The use of suprarenal concentrate by mouth in the treatment of bronchial asthma, urticaria, herpes zoster, and dermatitis venenata is new and apparently worthwhile. An interesting case of latent gastric carcinoma is described.

The medical man who could not find interesting and practical material in this volume had best take a vacation until his zest for medicine comes back.

Dietetics

Proudfit

NUTRITION AND DIET THERAPY; A Textbook of Dietetics. *By* FAIRFAX T. PROUDFIT, *Instructor in Nutrition and Diet Therapy, University of Tennessee College of Medicine; University of Tennessee School of Nursing; Director of the Dietary Department, John Gaston Hospital, Memphis, Tennessee. Seventh Edition, Completely Revised and Reset. New York: The Macmillan Company.* 1939. *Price,* $3.00.

FOR some reason, this inexpensive book is not well known to physicians. Within the covers of this sturdily bound volume will be found the answers to practically all the questions that come up concerning diet—What diet should I use in secondary or pernicious anemia? How can I instruct the mother concerning the preparation of important foods? Will this patient with hives or asthma understand how to take his elimination diet or his egg-free or milk-free diet? How can the foreign-born patient understand his dietetic needs? What is an adequate diet that can readily be understood by the wife and mother and will supply all vitamins and minerals needed by her family? Your office girl, or the patient herself, can readily type or write out the essential points from the menus and food lists here presented. In addition, the intelligent patient will acquire an understanding of the nature of disease or nutrition.

The entire work has been revised and rewritten. Various accepted methods of treatment along dietetic lines are given in full detail. Over one-half of the volume is given over to practical points on food-planning and easily read summaries of present-day views on vitamins, minerals, et cetera, which the physician will do well to glance through.

Intuition of the Will

Wood

THE INTUITION OF THE WILL, *By* ERNEST WOOD, *author of "Concentration," "The Seven Rays," etc. Chicago: The Theosophical Press. Price,* $1.00.

MOST of us, at some time, have had a sudden flash of keen insight that has solved a perplexing problem and brought a sense of dynamic peace.

We say that we have a "hunch," but what actually has happened is that we have tapped, for a moment, our higher emotional level of consciousness—our intuition—and here is a little book to teach us how to develop this faculty to the point where we may use it at will.

The book is not a text, in the sense that it contains didactic statements and technical phraseology, but the author's obvious mastership of his subject, his practical and inspiring suggestions, and his simple style, punctuated with bits of humor, cannot fail to be of value to anyone who is ready for the serious, day-by-day work of enlarging his own latent powers.

Mr. Wood makes free use of quotations from ancient and modern writings to prove the major premise of his argument, that "the universality of these intuitions demonstrates the existence of a universal mind," and the volume is both a guide-post and a road companion on the long, rewarding journey that it offers to the earnest reader.

E. P. G.

The Nose and Throat

Imperatori and Burman

DISEASES OF THE NOSE AND THROAT. *By* CHARLES J. IMPERATORI, M.D., F.A.C.S., *Professor of Otolaryngology, New York Polyclinic Medical School and Hospital; Formerly, Professor of Clinical Otolaryngology, New York Postgraduate Medical School; Consulting Laryngologist, to Harlem Hospital, New York; Consulting Bronchoscopist to Manhattan Eye, Ear and Throat Hospital, Etc., and* HERMAN J. BURMAN, M.D., F.A.C.S., *Adjunct Professor of Otolaryngology, New York Polyclinic Medical School and Hospital; Formerly, Assistant Professor of Clinical Otolaryngology, New York Postgraduate Medical School, Columbia University; Director of the Department of Otolaryngology, Harlem Hospital, New York, Etc. Second Edition, Revised;* 480 *Illustrations. Philadelphia, London, and Montreal: J. B. Lippincott Company.* 1939. *Price,* $7.00.

THIS is not a standard text, to be used equally by the student and the practitioner; it is a working manual of otolaryngology, which is condensed, practical, and classified for ready availability.

Each disease is discussed under the headings of definition, symptoms, diagnosis, treatment, complications, prognosis, pathology, etiology, and prophylaxis. A line or short paragraph suffices for each small section thus covered, and presents the "meat" only, without superfluous words.

The student and the practitioner without otolaryngologic experience will enjoy the many sketches of the normal and abnormal appearance of the nose and other organs. Full details are given as to the examination required of each region.

It is unusual for a book of this type to cover diseases of the gums and floor of the mouth, as this one does. Agranulocytosis is presented, as it should be, in the section on diseases of the phar-

ynx, and all methods of treatment now used are detailed.

Excellent examples of the terse and information-packed sentences are these: "Mucous patches are the characteristic lesion in the pharynx, occurring chiefly on the pillars, the tonsils, and the soft palate. The patches are grayish-white, usually oval shaped, sharply defined, slightly elevated, and surrounded by an inflammatory area."

The intern and isolated practitioner will be thankful for the serial sketches of tracheotomy technic, which teach so much better than pages of text.

The text covers the entire field of nose and throat diseases, with their medical and surgical treatment. Endoscopy is presented well. The short chapter on plastic surgery of the nose is good.

New Books Received

The following books have been received in this office and will be reviewed in our pages as rapidly as possible.

ANESTHESIA. Narcosis, Local, Regional, Spinal. *By* A. M. Dogliotti, M.D. *Authorized English Translation by* Carlo S. Scuderi, M.S., M.D., F.A.C.S. *Chicago: S. B. Debour, Publishers.* 1939. *Price,* $7.50.

THE STORY OF SURGERY. *By* Harvey Graham. *With a Foreword by* Oliver St. John Gogarty. *New York: Doubleday, Doran & Company, Inc.* 1939. *Price,* $3.75.

ILLUSTRATIONS OF REGIONAL ANATOMY. *By* E. B. Jamieson, M.D. *In Seven Sections. 2nd Edition. Baltimore: William Wood & Company.* 1937. *Price,* $15.00, *for complete set.*

DISEASES OF THE SKIN. *By* Richard L. Sutton, M.D., Sc.D., LL.D., F.R.S. (Edin.) *and* Richard L. Sutton, Jr., A.M. M.D., L.R.C.P. (Edin.) *10th Edition, Revised, Enlarged and Reset. St. Louis: The C. V. Mosby Company.* 1939. *Price,* $15.00.

STUDIES ON THE CHANGING INCIDENCE OF PEPTIC ULCER. Of the Stomach and Duodenum. *By* Gunnar Alsted, M.D. *With a Preface by* Professor E. Meulengracht. *New York: Oxford University Press.* 1939. *Price,* $4.00.

PRACTICAL OBSTETRICS. *By* P. Brooke Bland, M.D. *and* Thaddeus L. Montgomery, M.D. *3rd Revised Edition. Philadelphia: F. A. Davis Company.* 1939. *Price,* $8.00.

ESSENTIALS OF FEVERS. *By* Gerald E. Breen, M.D., Ch.B. (N. U. I. Dub.), D.P.H., D.O.M.S. (R. C. P. Lond., R. C. S. Eng.). *Baltimore: The Williams & Wilkins Company.* 1939. *Price,* $3.00.

MICROBIOLOGY AND PATHOLOGY. *By* Charles F. Carter, B.S., M.D. *2nd Edition. St. Louis: The C. V. Mosby Company.* 1939. *Price,* $3.25.

NITROUS OXIDE-OXYGEN ANESTHESIA. McKesson-Clement Viewpoint and Technique. *By* F. W. Clement, M.D. *Philadelphia: Lea & Febiger.* 1939. *Price,* $4.00.

ASTHMA. *By* Frank Coke, F.R.C.S. *With the Collaboration of* Harry Coke, M.R.C.S., L.R.C.P. *2nd Edition, Fully Revised. Baltimore: The Williams & Wilkins Company.* 1939. *Price,* $4.00.

PIONEERS IN ACUTE ABDOMINAL SURGERY. *By* Zachary Cope, B.A., M.D., M.S. Lond., F.R.C.S. Eng. *New York: Oxford University Press.* 1939. *Price,* $1.75.

TREATMENT OF RHEUMATISM IN GENERAL PRACTICE. *By* W. S. C. Copeman, M.A., M.D., B.Ch. (Cantab.), F.R.C.P. (London). *3rd Edition. Baltimore: The Williams & Wilkins Company.* 1939. *Price,* $4.00.

TEXTBOOK OF MEDICAL TREATMENT. *By Various Authors. Edited by* D. M. Dunlop, B.A. (Oxon.), M.D., F.R.C.P. (Edin.); *et al. With a Foreword by* A. J. Clark, B.A. (Camb.), M.D., D.P.H., F.R.C.P. (Lond.), F.R.S. *Baltimore: The Williams and Wilkins Company.* 1939. *Price,* $8.00.

A SURVEY OF CHILD PSYCHIATRY. Contributed by Contemporary British Authorities. *Edited on Behalf of the Child Guidance Council by* R. G. Gordon, M.D., D.Sc., F.R.C.P. Ed. *New York: Oxford University Press.* 1939. *Price,* $3.50.

THE RECTUM AND COLON. *By* E. Parker Hayden, A.B., M.D., F.R.C.S. *Philadelphia: Lea & Febiger.* 1939. *Price,* $5.50.

HUMAN GASTRIC SECRETION. A Quantitative Study of Gastric Secretion in Normal and Pathological Conditions. *By* Bengt J. E. Ihre, M.D. *With a Foreword by* Sir Arthur Hurst, M.D., F.R.C.P. *New York: Oxford University Press.* 1931. *Price,* $6.00.

A SYNOPSIS OF REGIONAL ANATOMY. *By* T. B. Johnston, M.D. *4th Edition. Philadelphia: Lea & Febiger.* 1939. *Price,* $4.50.

HEPARIN. Its Chemistry, Physiology and Application in Medicine. *By* J. Erik Jorpes, M.D. *New York: Oxford University Press.* 1939. *Price,* $2.50.

ANATOMY AND PHYSIOLOGY. *By* Frederic Theodore Jung, B.S., Ph.D., M.D.; Anna Ruth Benjamin, B.A., M.D. *and* Elizabeth Carpenter Earle, B.A., R.N. *Philadelphia: F. A. Davis Company.* 1939. *Price,* $3.50.

MANUAL OF UROLOGY. *By* R. M. LeComte, M.D., F.A.C.S. *2nd Edition. Baltimore: The Williams & Wilkins Company.* 1939. *Price,* $4.00.

AIDS TO DERMATOLOGY AND VENEREAL DISEASE. *By* Robert M. B. Mackenna, M.A., M.D., B.Ch. (Camb.), M.R.C.P. (Lond.). *2nd Edition. Baltimore: The Williams & Wilkins Company.* 1939. *Price,* $1.25.

EYE, EAR NOSE AND THROAT MANUAL FOR NURSES. *By* Roy H. Parkinson, M.D., F.A.C.S. *4th Edition. St. Louis: The C. V. Mosby Company.* 1939. *Price,* $2.25.

PRINCIPLES OF CHEMISTRY. An Introductory Textbook of Inorganic, Organic, and Physiological Chemistry for Nurses and Students of Home Economics and Applied Chemistry. *By* Joseph H. Roe, Ph.D. *5th Edition. St. Louis: The C. V. Mosby Company.* 1939. *Price,* $3.00.

CLINICAL DIAGNOSIS BY LABORATORY METHODS. A Working Manual of Clinical Pathology. *By* James Campbell Todd, Ph.B., M.D., *and* Arthur Hawley Sanford, A.M., M.D. *9th Edition, Thoroughly Revised. Philadelphia: W. B. Saunders Company.* 1939. *Price,* $6.00.

SURGICAL APPLIED ANATOMY. *By* Sir Frederick Treves, Bart. *10th Edition, Revised by* Lambert Rogers, M.Sc., F.R.C.S., F.R.C.S.E., F.R.A.C.S., F.A.C.S. *Revised from the Ninth Edition Prepared by the late* Professor C. C. Choyce, C.M.G., C.B.E., M.D., F.R.C.S. *Philadelphia: Lea & Febiger.* 1939. *Price,* $4.50.

SCLEROSING THERAPY. The Injection Treatment of Hernia, Hydrocele, Varicose Veins and Hemorrhoids. *Edited by* Frank C. Yeomans, M.D., F.A.C.S. M.R.S.M. (London, Hon.). *Baltimore: The Williams & Wilkins Company.* 1939. *Price,* $6.00.

BRUCELLOSIS IN MAN AND ANIMALS. *By* I. Forest Huddleson, D.V.M., M.S., Ph.D. *Contributing Authors,* A. V. Hardy, M.S., M.D., Dr.P.H.; J. E. Debono, M.D., M.R.C.P. *and* Ward Giltner, D.V.M., M.S., Dr.P.H. *New York: The Commonwealth Fund.* 1939. *Price,* $3.50.

THE NEW INTERNATIONAL CLINICS. *Edited by* George Morris Piersol, M.D. *Volume III, New Series Two, September,* 1939. *Philadelphia: J. B. Lippincott Company.* 1939. *Price,* $3.00, *current year;* $5.00, *back years.*

THE INTERNATIONAL MEDICAL ANNUAL. A Year Book of Treatment and Practitioner's Index. *Edited by* H. Letheby Tidy, M.A., M.D. (Oxon.), F.R.C.P. *and* A. Rendle Short, M.D., B.S., B.Sc., F.R.C.S. *Baltimore: William Wood & Company.* 1939. *Price,* $6.00.

THE SERODIAGNOSIS OF SYPHILIS. Supplement No. 9 to Venereal Disease Information. *Washington: U. S. Government Printing Office.* 1939. *Price,* $.30. *Order from Superintendent of Documents, Washington, D.C.*

—Medical News—

Kobel Feature Photos.

Country Doctor Honored

DR. J. S. Templeton, of Pinckneyville, Ill., has been called a "typical country doctor," but the picture above suggests that he is not an *ordinary* one, for this group consists entirely of the grandchildren of Mrs. Mattie Bigham (at the left), of the good Doctor's home town, *all of whom have been brought into the world by Doctor Templeton* (at the right). That must be some kind of a record, and demonstrates the esteem in which he is held by his patients.

The esteem in which the Doctor is held by his confreres was shown last May, when, at its 99th annual meeting, the Illinois State Medical Society chose him as its president-elect, to take office at next year's meeting. Thus a man who has brought honor to his profession is honored by it.

Opening in Pennsylvania

WORD has reached us that, through the retirement of an elderly physician, there is a good opening for an active and up-to-date young doctor in a town of about 2500 inhabitants, in a prosperous rural district with good roads, in southeastern Pennsylvania, about 40 miles from Harrisburg. For particulars, write to C. M. Hamaker, Myerstown, Pa.

The United States Pharmacopoeial Convention

IN compliance with the provisions of the constitution and by-laws of the United States Pharmacopoeial Convention, I hereby invite the several bodies entitled under the constitution to representation therein to appoint three delegates and three alternates to the Convention for the Revision of the Pharmacopoeia of the United States of America, which is to meet in Washington, D.C., on May 14, 1940.

In the past, the Committee of Revision has included men of the highest rank in the several fields. That it may continue so to do, it is asked that the various bodies authorized to send delegates to the Convention will appoint their full quota of delegates, and will select these from among those of their own people whom they know to be informed and at the same time prepared to attend the Convention.

WALTER A. BASTEDO, M.D.,
President of the United States Pharmacopoeial Convention.

Navy Medical Corps Examination

AN examination for commission in the Medical Corps of the United States Navy and for appointment as intern in the Medical Corps of the United States Navy will be held at all naval hospitals in the United States and at the Naval Medical School, Washington, D.C., beginning November 6, 1939. Write the Surgeon General, U.S. Navy, Bureau of Medicine and Surgery, Navy Department, Washington, D.C., for further information.

Attend the I.P.M.A. Meeting
Chicago, Oct. 30—Nov. 3

Blakiston's Changes Hands

THE publishing house of P. Blakiston's Son & Company, Inc., specializing in scientific and medical books, has been purchased by Horace G. White. This business was established by Presley Blakiston in 1843, and was continuously in the Blakiston family until the death of Kenneth M. Blakiston in 1937. The policies which have made this old established concern so successful will be carried on by Mr. White, who has been connected with the company for over twenty-eight years, under the name of *The Blakiston Company*.

CLINICAL MEDICINE AND SURGERY is of great help to me in my studies, and much of my references originate from this source.—S. B. (Med. Student), Calif.

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1 The Pneumonic Lung. Its Physical Signs and Pathology. Denver Chemical Mfg. Co.

4 Taurocol. The Paul Plessner Co.

6 Dr. Weirick's Sanitarium. Dr. G. A. Weirick.

9 Elixir Bromaurate in the Treatment of Whooping Cough and other Persistent Coughs. Report of Cases. (Booklet.) Gold Pharmacal Co.

11 Chondroitin; for Treatment of Idiopathic Headache. The Wilson Labs.

15 Cough—Its Symptomatic Treatment. Martin H. Smith Co.

17 Feeding Diabetic Patients. Knox Gelatine Labs.

19 Menstrual Regulation by Symptomatic Treatment. Martin H. Smith Co.

20 Hyperol. A Utero-Ovarian Tonic and Corrective. Purdue Frederick Co.

21 Gray's Glycerine Tonic Comp. Purdue Frederick Co.

22 Feeding Sick Patients. Knox Gelatine Labs.

25 Clinical Guide for Female Sex Hormone Therapy. Schering Corp.

27 Reducing Diets and Recipes. Knox Gelatine Laboratories.

31 The Germicidal Efficiency of the Vaporized Cresols of Coal Tar. Vapo-Cresolene Co.

33 Foot Weakness and Correction for the Physician. The Scholl Mfg. Co., Inc.

41 Oreton—Male Sex Hormone. Schering Corp.

43 Karo Syrup for Infant Feeding. Corn Products Sales Co.

44 Appliances for the Mechanical Retention of Hernia. Brooks Appliance Co.

46 Vitafer. A Reconstructive Tonic containing Antianemic Factors with Vitamin B. The National Drug Co.

50 Gestasol. The Follicular and Luteinizing Fractions obtained from Human Placentae. The National Drug Co.

54 Use of Zinc Borate in Otolaryngology. Hille Laboratories.

78 Argyrol in Urology and Gynecology. A. C. Barnes Company.

91 Adrenal Cortex; for the Treatment of Addison's Disease and Asthenia. The Wilson Labs.

99 A Survey in Two Fields of Medicine. A. C. Barnes Co.

100 Neo-Plasmoid. The Modern Solution for the Injection Treatment of Hernia. Farnsworth Labs.

105 Ovoferrin. Iron in its Most Efficient Subdivision. A. C. Barnes Co.

111 Argyrol in Ophthalmology. A. C. Barnes Company.

123 Resumé of Venereal Therapy. Mallinckrodt Chemical Works.

130 Allantoin Ointment 2% in Slow and Non-healing Wounds and in Burns. The National Drug Co.

135 Argyrol in Otorhinolaryngology. A. C. Barnes Co.

137 Barium Sulfate. Resumé of Use in Alimentary Roentgenology. Mallinckrodt Chemical Works.

146 Moru-Quin for Injection Treatment of Varicose Veins. The National Drug Co.

148 Ampoule Products for Subcutaneous, Intramuscular, and Intravenous Medication. Associated Physicians Labs.

149 Metanic Jelly. Abbott Labs.

151 Cofron Liver Concentrate. Abbott Labs.

154 Cyclopropane for Anesthesia. Mallinckrodt Chemical Works.

155 Alkali or Calcium, Which Shall It Be? Wm. R. Warner & Co., Inc.

157 Galatest—A New Micro-Reagent for Instantaneous Detection of Urine Sugar. The Denver Chem. Mfg. Co.

159 Zemacide, an Efficient and Dependable Local Application for Eczema. The Tilden Co.

161 Pregnacol, an Intradermal Test for the Determination of Pregnancy from the Second Week to the Fifth Month. Ernst Bischoff Co.

165 Tebigen—A New Homologous Antigen for the Diagnosis of Tuberculosis. Ernst Bischoff Co.

166 The Dowling Treatment. Thirty Years of Observation and Results. A. C. Barnes Co.

168 Low Back Pain, Sarapin, and Neuralgias. High Chemical Co.

171 The Problem of Cardiovascular Sedation. Grant Chemical Co., Inc.

172 Summer Constipation. Wm. R. Warner & Co., Inc.

173 APestrin in Utero-ovarian Insufficiencies. The Harrower Lab., Inc.

174 Peptic Ulcer Dietary. Knox Gelatine Labs.

175 Modern Estrogenic Hormone Therapy. Reed & Carnrick.

176 Cortinal. A Standardized Lipid Extract of Adrenal Cortex for Oral Use. The Harrower Lab., Inc.

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